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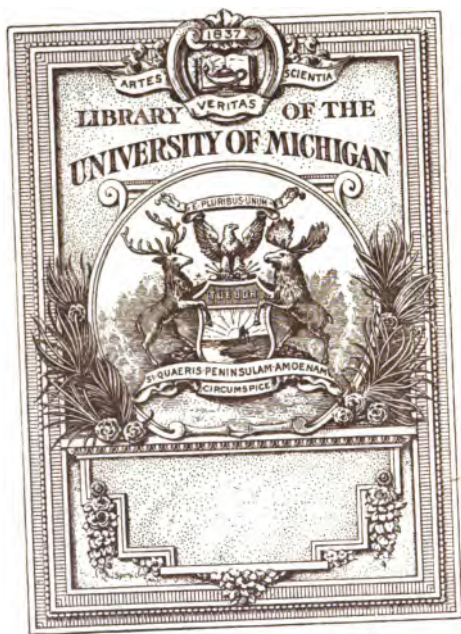
TO THE

NUMISMATIC COLLECTION
OF THE MINT OF THE UNITED STATES
AT PHILADELPHIA, PA.

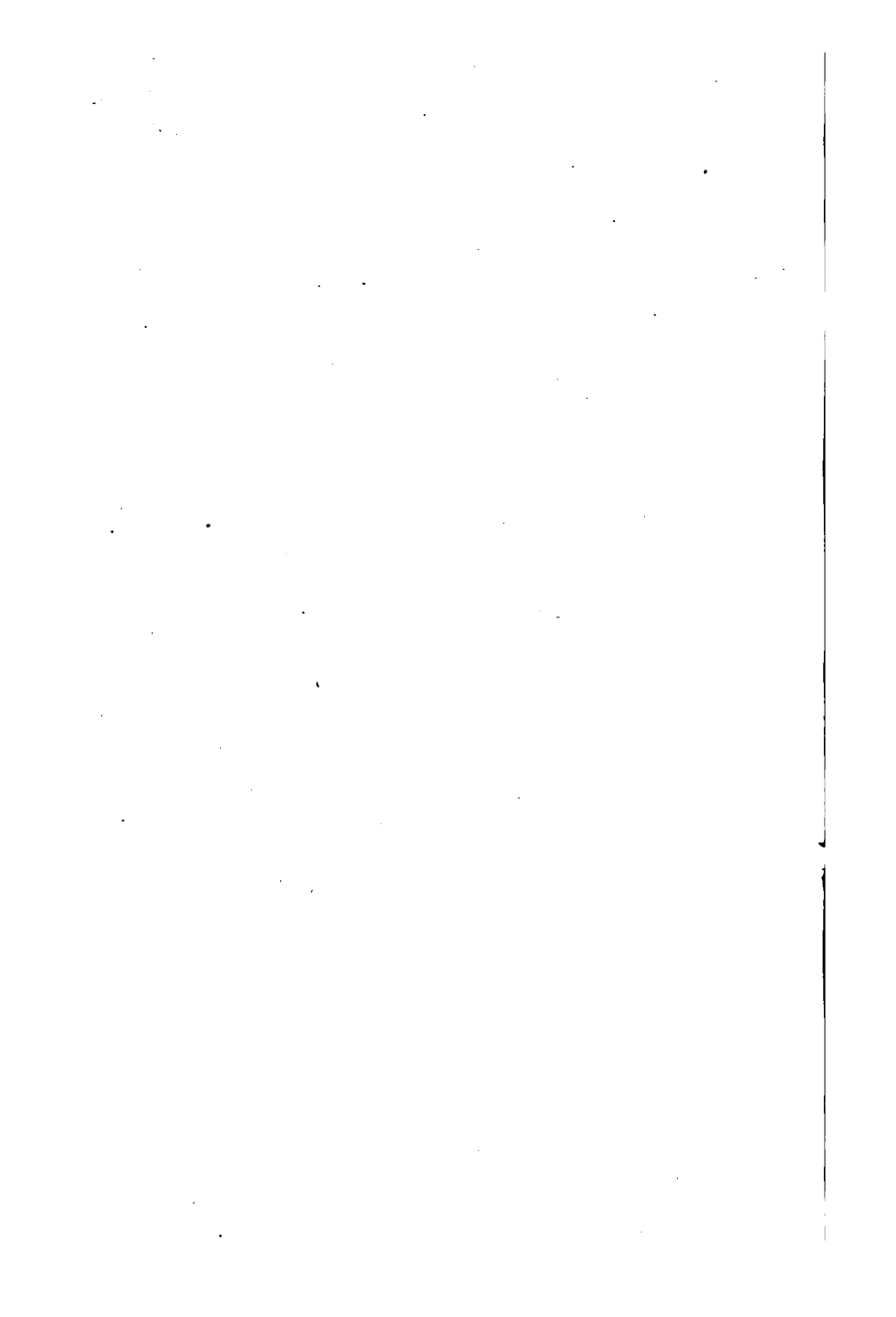
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1913



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UNITED STATES MINT, PHILADELPHIA, PA.

U.S. Mint
GUIDE

TO THE

NUMISMATIC COLLECTION
OF THE MINT OF THE UNITED STATES
AT PHILADELPHIA, PA.

(SIGIL. THES. AMER. SEPTEN.)



WASHINGTON
GOVERNMENT PRINTING OFFICE
1913



TREASURY DEPARTMENT,
Document No. 2677.
Director of the Mint.

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TREASURY DEPARTMENT,
OFFICE OF DIRECTOR OF THE MINT,
Washington, January 28, 1913.

The honorable the SECRETARY OF THE TREASURY.

SIR: The need has long been felt of a small descriptive guide book which could be sold to visitors to the Numismatic Collection in the Philadelphia Mint. A year ago a complete catalogue of the collection, a book of 600 pages, was published, which sells at \$1, and public interest in it has justified the publication. This, however, does not fully satisfy the want. There are thousands of visitors annually who would be served and instructed by a small pamphlet that might be sold for much less than the price of the catalogue, and the usefulness of the collection would be greatly enhanced thereby. The copy for such a pamphlet has been prepared by the curator, Mr. T. L. Com-
parette, and is now submitted with the recommendation that an edition be printed and offered for sale at the Mint and through the Superintendent of Documents at Washington.

Respectfully,

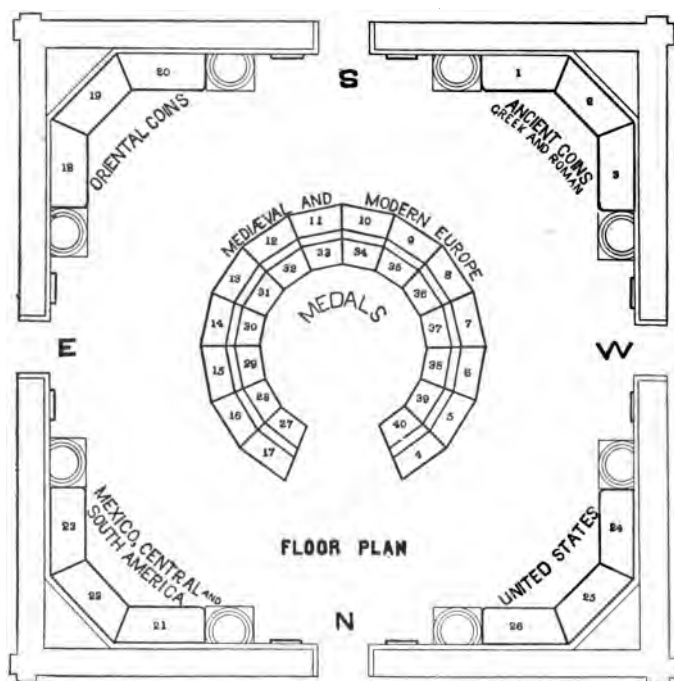
GEO. E. ROBERTS,
Director of the Mint.

Approved:

FRANKLIN MACVEAGH,
Secretary of the Treasury.

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GENERAL INFORMATION CONCERNING COINAGE OF THE UNITED STATES.

Mints of the United States.—An act of Congress of April 6, 1792, provided for a mint. David Rittenhouse, a well-known scientist and engineer, was made director and proceeded to build and equip one. This first mint building was erected on Seventh Street near Arch Street, Philadelphia, and so expeditiously was the construction carried on that trial pieces of proposed coins were produced in November of that year. President Washington in a report to Congress refers to *half-dimes* (dimes) that had been struck. By 1829 the Seventh Street mint had become inadequate and perhaps too simple a structure for the growing Nation, and a second mint building was erected on Penn Square, Juniper and Chestnut Streets. It was occupied in 1833, and for the times was an imposing marble structure of the Greco-Roman style of architecture. Six noble columns that adorned one of the façades of the building now stand at the entrance to the grounds of the Jewish Hospital on Old York Road. The present mint, a large granite building standing on Spring Garden Street between Sixteenth and Seventeenth Streets, was occupied in 1901.

From time to time the convenience of gold and silver producing regions have necessitated the establishment of other mints at different cities and a much larger number of assay offices, of which there was but one, and that at the mint, in the earlier history of the coinage. Following are the mints of the country, the marks by which their respective coins are distinguished, and also the dates of organization and, in some cases, of their suspension:

Philadelphia (no mint mark).....	1792
New Orleans (mint mark O).....	1838
Suspended.....	1861
Reopened.....	1879
Coinage discontinued.....	1910
Charlotte, N. C. (mint mark C).....	1838-1861
Dahlonega, Ga. (mint mark D).....	1838-1861
(The last two coined gold only.)	
San Francisco (mint mark S).....	1854
Carson City, Nev. (mint mark CC).....	1870-1893
Denver, Colo. (mint mark D).....	1906

The assay offices receive gold bullion, determine its value, pay for it, and ship it to the mints. Their operations are similar to those of the mints, except that they do no coinage. The offices at New Orleans and Carson City were established as mints, but no longer do

coinage. Following is a list of assay offices and date of acts under which they were established:

Boise, Idaho, February 19, 1869.	New Orleans, La., March 3, 1835.
Carson City, Nev., March 3, 1863.	New York City, March 3, 1853.
Charlotte, N. C., March 3, 1835.	Salt Lake City, Utah, May 30, 1908.
Deadwood, S. Dak., February 19, 1897.	Seattle, Wash., May 21, 1898.
Helena, Mont., May 12, 1847.	

Coinage regulations.—Gold coinage is without restriction. The Government will buy all of the gold bullion tendered at the offices of the mint service and pay its coinage value. The subsidiary silver, nickel, and bronze coins are of limited legal tender, and are issued and redeemed at any office of the Treasury to meet the public demands.

The question is often asked how the coinage of the mints gets into circulation. As all gold bullion is paid for at its full coinage value the act of purchase puts an equal amount of gold coin or gold certificates into circulation. The small coins are issued in exchange for the larger denominations of money and usually reach the public through the banks, which order them to meet the wants of their customers.

Seigniorage is the difference between the face value of a coin and the cost value of the metal it contains. The United States realizes a large sum each year in seigniorage upon the silver and minor coins, but nothing from the gold coins. Gold bullion, which requires treatment to fit it for coinage, is subject to charges sufficient to cover the necessary costs. Gold bullion is purchased at the rate of \$20.671834625 per Troy ounce fine.

The seigniorage realized by the Treasury upon silver and minor coins during the fiscal year ending June 30, 1912, was as follows:

On the half-dollars, quarter-dollars, dimes.....	\$4, 567, 823. 96
On the 5-cent and 1-cent pieces.....	1, 882, 057. 86
Total.....	6, 449, 881. 82

Proof coins.—A proof coin is struck by hand on a hydraulic press. The price per set of gold proof coin is \$38.50; the proof set of subsidiary silver and minor coin, \$1.20; the proof set of minor coins, 15 cents.

Medals.—A list of medals sold at the mint, with prices, will be supplied upon request. Medals of the Presidents are sold at \$1 each. If ordered by mail return postage and registry fee should be added.

No premiums.—The Government has never called in any of its coins at a premium.

Paper money.—The paper currency is printed at the Bureau of Engraving and Printing, Washington, D. C.

Catalogue.—A complete catalogue of the mint collection of coins and medals is sold at \$1 per copy.

A BRIEF HISTORY OF THE ORIGIN OF COINS.

The invention of coins in the Occident took place not far from 700 B. C. The somewhat untrustworthy Chinese chronology claims a much earlier date for the first use of coins in the Orient, and the claim may be correct; but as yet no such reliable data for the origin of oriental coinage has come to light as we have for the beginning of coinage in Asia Minor and at Ægina, in Europe, in both of which places literary tradition is fairly well corroborated by existing monuments.

The coin was the result of a gradual evolution from (1) the unmarked lumps of gold and silver that were passed by weight in buying and selling, through (2) *stamped* ingots of varying size and weight and value, to (3) small ingots of *uniform* weight and similar shape, provided with the signet of a recognized responsible authority whether private or public. This last form of the ingot was ovoid, or bean shaped, and is recognized as the beginning of coined money. This development of the coin came about gradually in all the com-



Gold stater of Lydia, time of Croesus, B. C. 568-554.

mercial countries around the Mediterranean Sea, but tradition, in fact two rival traditions have given priority, the one to the electrum coinage of Lydia, the other to the silver coins issued at Ægina by Phædon, King of Argos. The electrum, in which the Lydian coins were struck, was a natural mixture of gold and silver in proportions so varying that the value of the coins was always in doubt. For this reason countermarks are of frequent occurrence on extant specimens of the earliest coins, these countermarks being the private marks of well-known merchants or other business firms, who thus guaranteed the genuineness of the piece. Herodotus tells us that "the Lydians were the first people to make gold and silver coin"; that is, coins of gold and silver *separately*; and this separation of the two metals may with reason be attributed to the financial genius of the famed Croesus, King of Lydia, B. C. 560-550, or to his ministers.

Until about the time of the Persian wars (B. C. 490-479) coins had a type on but one side; on the other side of the piece were only the marks of the spike or the anvil on which the flan or blank was placed to strike it; soon after that period types are generally found on both sides. To our modern eyes, accustomed to a more convenient form of coins, the most striking feature of the ancient Greek coins is the artistic beauty of their types. The period of the greatest artistic excellence of Greek coin types extends from the time of

Pericles to Alexander the Great. The earlier types are mostly religious, and present the head of some deity; but civic types are numerous, presenting animals, plants, etc., which often symbolize the cities that issued the coins much as do modern seals and coats of arms. The first portrait to appear on coins was that of the deified Alexander the Great, on the coins of Lysimachus, King of Thrace (B. C. 323-281); while Ptolemy Soter, King of Egypt (B. C. 323-311), was the first monarch to place his own portrait on his coins.

The practice of coining money soon spread over the civilized world—to Persia in the reign of Cyrus (B. C. 558-529); to Egypt long accustomed to the use of foreign coins, in the time of Alexander; to Judea, under the Maccabees (B. C. 138), where Persian coins, Egyptian, and various Greek moneys, in turn, had been in circulation since the Jews had learned the use of coins during the Babylonian captivity.



A Decadrachm of Syracuse, about B. C. 405.

Keeping pace with the artistic development of Greece the art of the coin engraver attained its highest degree toward the end of the fifth century, and until the reign of Alexander the Great, B. C. 336-323, the coins of the hundreds of Greek communities possessed an artistic character never equaled at any other period of the world's history. In fact they were so superior to modern coins that even yet one occasionally hears an echo of the earlier belief that they were not coins designed for common circulation in the Greek cities, but artistic medals or gems unassociated with useful purposes.

The earliest coinage metal of Italy was copper; the earliest coins of Italy date from about B. C. 338, and were so large that they only could be made by casting. The unit was the *as* which originally weighed a pound. Silver was first coined by the Romans in B. C. 268; gold was first struck only as an emergency coinage by generals in the field, and did not enter into the regular coinage of the Republic until the time of Julius Caesar; and brass, or *orichalcum*, a new composition of metals at that time, was introduced when Augustus reformed the coinage in B. C. 15. Throughout the Republic and

until the middle of the first century of the Empire Roman coins, as Greek coins had been before them, were without legal alloy, the gold and silver being as nearly pure as the faulty methods of refining then known made possible. Till the last the standard of the gold coins was maintained, but the debasement of Roman silver coins began in the reign of Nero, and in spite of two or three efforts at reform, deterioration went on until the end of the empire, the "silver" coins toward the last being only copper coins with a slight silver wash.

The types of Roman coins were at first religious, and the series of early coppers presented the chief deities of the Roman Pantheon on the obverses, beginning with Janus on the *as*, which was the unit and the largest of the series; then following with the head of Jupiter on the *Semis*, etc.; while on the reverse throughout the series there was a ship's prow. Subsequently the types of the silver coins presented only the head of the one deity, the goddess Roma, some personification, or a mythical personage or hero, on the obverse; and on the reverse there was generally portrayed an historical event, one in which often some ancestor of the moneyer had figured promi-



Carlovingian Deniers. About A. D. 875.

nently. In many cases these historical types may represent the signets of the moneyers.

The coinage of western Europe, following the end of the Roman Empire, was almost exclusively in gold, the still extant silver and bronze coins of Rome supplying the needs of trade. The later Roman monetary system was retained throughout this period, and the types of these barbaric issues were strongly influenced by the Roman coins.

The constructive reign of Charlemagne (A. D. 768-800-814) wrought a vast change in the monetary system of Europe. The coinage of gold ceased entirely, and only silver coins were provided for on a system of 24 *denarii* (pennies) to a *solidus* (shilling) and 20 *solidi* to the pound (libra), or 240 *deniers* to a pound of silver. Only the *denier* and its half, the *obole*, were coined, the former being a piece approximately the size of a United States dime. The monetary system of Charlemagne was later adopted in England where it is still seen in the pound, shilling (*solidus*), and penny (*denarius*).

The debasement of the deniers soon began. For the policy of bestowing the right of coinage upon numerous vassal heads of petty States, upon ecclesiastics and cities, begun by the German emperors in the tenth century, soon spread to all Europe and resulted in the estab-

lishment of thousands of mints, many of which proceeded to increase the profits from coinage by debasing the coins. In many mints the actual value of the *denier*, *pfennige*, or *penny*, or whatever name the piece went under in different countries, was reduced more than half its value; in France the debasement was even greater; while in parts of Germany in the twelfth century, under the urgent demand for money resulting from the Crusades, arose the easily struck *bracteate*, a coin as thin as paper and nearly as flimsy. The latter part of the twelfth century marks the nadir of the world's coinage.



Gros Tournois of Louis IX, 1236-70.

IMPROVEMENT OF THE WORLD'S COINAGE AND OF THE ART OF COINAGE.

The beginning of coinage reform was made in France, where in the early part of the thirteenth century there was struck at the mint in the city of Tours, a good silver coin of the value of 12 *deniers*, which was the *solidus* or *shilling* of the system introduced by Charles the Great, and became known as the *gros Tournois*, from its large size and place of minting. A silver coin of similar value was soon



Fiorino D'Oro of Florence.

coined throughout Europe usually under the same name of the *grossus*, *grosso*, *groshen*, or *groat*. The types of this new coin varied in different countries, but on one side there was usually a cross.

The return of gold coinage.—In the last years of the eighth century the coinage of gold ceased in western Europe, and whatever need of that metal there was during the Middle Ages in that portion of the

Continent and in the British Isles was supplied by the plentiful gold coinage of Byzantium. The gold *besants* circulated throughout the civilized world. Tentative efforts were made to reestablish the coinage of gold in the West, first in The Sicilies by the Norman duke, Roger II, who struck gold *ducats* in about A. D. 1050; and in the same country Frederick II (A. D. 1194–1250) issued a gold *Augustale* after the model of the Roman Aureus. But the real return of gold coinage in this part of Europe occurred at Florence. This city had become the center of extensive industries, had a large foreign commerce, and great banking institutions made it also the financial center of Europe. Such a development made a large supply of gold coin imperative, and in A. D. 1252 Florence issued the gold *florin* bearing on the obverse the standing figure of St. John the Baptist and on the other side the Florentine lily. The new coin was attractive in appearance and began at once to supplant everywhere the eastern *besant* and then to be imitated at nearly all the leading mints of Europe. Only a little less famous was the gold piece struck in Venice in A. D. 1284, and known as a *ducat* from the last word of the motto it bore: *sit tibi, Christe, datus quem tu regis, iste ducatus*, and as a *zecchino* (sequin) from *la zecca* the name of the building in which the mint was located. The types of this Venetian piece were a standing figure of the Christ in an oval of stars, and a kneeling doge receiving a standard from St. Mark.



Silver Guldengroschen, 1486. The "First Dollar."

The first coinage of the dollar.—The first large silver coin of the size that afterwards became generally known as the dollar, thaler, tollero, etc., was struck in the Tyrol by the Archduke Sigismund of Austria. The coin bears the date 1486, and though generally regarded now as the first dollar, yet in 1484 a thick piece of smaller diameter and also a *halbthaler* were issued from the same mint. The types of the large piece of 1486 were a standing figure of the archduke, with the arms of Austria and a helmet in the field, and on the reverse a knight in full armor galloping right. These large silver coins when first issued

ern coins have a historical origin, the smaller coming first, and are only apparently derived from the multiples or divisions of a fixed unit. Thus, in our own silver series, the *dime* is a descendant of the *denier* of the system of Charlemagne (A. D. 800); the *quarter* corresponds approximately to the *gros*, or *shilling*, first issued at Tours, France, in the early part of the thirteenth century; the *half-dollar* is somewhat larger than the Italian *testone*, to which it most nearly approximates, whose origin is about simultaneous with that of the *dollar* in the latter part of the fifteenth century. Among all peoples there is a strong tendency to be markedly conservative toward popular institutions; and this natural bent of mankind manifests itself strongly in the case of money by the universal tendency to preserve the coin denominations and the systems of coinage which have once proved to be adapted to popular convenience.

Metals used for coins.—A very large number of metals, and other materials as well, have been used for coins. Thus coins have been made of electrum, gold, silver, iron, copper, bronze, potin, leather, wood, platinum, nickel, and aluminum.

Processes of coining.—Greek and Roman coins were all struck with the hammer, the lower die being at first inserted in an anvil, the upper held upon the blank with a pair of tongs, while a second workman struck the die with a sledge hammer. No collars were used, and since the metal did not always spread evenly Greek and Roman coins are frequently not round. It is probable that the larger coins were struck when glowing hot. The early large Roman copper coins were cast. Although the Romans, and later the Germans and French, invented simple devices to hold the coin in place till repeated blows could be given when the first stroke of the hammer had failed to produce perfect results, yet the process remained substantially the same until the early part of the seventeenth century. The coin blanks were cast in ancient times; in the medieval period they were cut out of drawn strips by means of shears or other cutting tool. Early in the seventeenth century Nicolas Briot, at the French mint, invented the *mill and screw*—a machine (mill) for punching out the blanks and a screw for striking the coins. The coins made by the new process were most readily detected by their more perfect edges, whence arose the expression "milled edge," now erroneously applied to a reeded edge. The efficient modern power press is a development of the last century.

GUIDE TO THE COLLECTION.

The coins referred to in the Guide will be found in the small maroon pasteboard trays, and other pieces of special interest will be found in black trays.

ANTIQUE COINS.

A. GREEK COINS.

[Section 1.]

The earliest Greek coins were struck in electrum (Miletus No. 200; lower case), a natural composition of gold and silver; subsequently coins were struck in the two metals separately, and in the latter part of the fifth century the coinage of bronze was introduced in Greece.

The types of Greek coins are, for the most part, of a religious character, and the most usual is a representation of the head of a deity or some well-known symbol of a god or goddess. Where local myths or products are represented on the coin types, they are generally to be connected with the patron divinity of the place. Not until after the death of Alexander the Great does one find on Greek coins the portrait of a human being. See page 18.

The denominations of Greek coins are simply the names of the weights of the coins, as is the case with many modern coins. The unit of gold coins was the *stater*, a weight of 2 drachms, or 135 grains; the unit of the silver coins was the *drachm*, derived from the weight of that name, which was 67½ grains. The following lists show the principal denominations, and also that in the divisional silver coins two secondary units were recognized:

Denominations.	Weight.	Denominations.	Weight.
GOLD.		SILVER—continued.	
Tetrastater (or octo-drachm).....	4 staters. ¹	Tetradrachm.....	4 drachms.
Distater (or tetradrachm).....	2 staters.	Didrachm (stater).....	2 drachms.
Stater (or didrachm).....	1 stater.	Drachm.....	1 drachm.
Hemistater (or drachm).....	½ stater.	Tetrobol.....	4 obols. ²
Trite (or tetrobol).....	⅓ stater.	Triobol.....	3 obols.
Hecte (or diobol).....	¼ stater.	Diobol.....	2 obols.
		Trihemiobol.....	1½ obols.
SILVER.		Obol.....	1 obol.
Decadrachm.....	10 drachms. ²	Hemiobol.....	½ obol.
Octodrachm.....	8 drachms.	Tetartemorion.....	¼ obol.
		Trihemitartemorion.....	⅓ obol.

Gold stater=20 silver drachms.

¹ 1 stater=135 grains.

² 1 drachm=67½ grains.

³ 1 obol=11½ grains.

The earliest Greek coins bore types on only one side, the other side having at first simply the marks made by the roughened surface of the anvil which held the blank in place while being struck with the die; a little later three or more projections took the place of the merely rough spot on the anvil and the coins were marked on the lower side by rather deep depressions or incuses, which were sometimes arranged so as to form a square, which is commonly known as an *incuse square*. For examples, see:

200. Electrum, Hemistater, of *Miletus* (B. C. 700-494). *Obv.* Fore part of lion. *Rev.* Triple incuse impression.

203. El. Hecte, of *Phocaea* (B. C. 650-560). *Obv.* Head of Pallas. *Rev.* Incuse square.

149. AR. Stater, *Corinth* (B. C. 600-500). *Obv.* Pegasus. *Rev.* Incuse square.

Subsequently a type was placed in the incuse square, small at first, but finally extended to the entire surface. See:

204a. AR. Drachm, *Cnidus*. *Obv.* Forepart of lion. *Rev.* Head of Aphrodite in incuse square.

Nearly all Greek coin types are of a sacred character, a fact which may be due to origin in the temples of the various divinities, where often great store of the precious metals had accumulated. At first the types present animals and other objects emblematical of the divinities, later representations of the head or full form of the divinity. For examples, see:

ZEUS.

51. AR. Tetradrachm, of *Philip II* (B. C. 359-336), of Macedon. *Obv.* Head of Zeus. *Rev.* Boy rider, crowning the horse.

223. AR. Tetradrachm, of *Seleucus I* (B. C. 312-280), of Syria. *Obv.* Head of Zeus. *Rev.* Pallas in quadriga.

59. AR. Tetradrachm, of *Alexander the Great*. *Obv.* As No. 58. *Rev.* Zeus seated on throne, holding eagle in right hand, scepter in left.

HERA.

171a. AR. Drachm, of *Elis*. Head of Hera.

HERACLES.

58. AR. Tetradrachm, of *Alexander the Great* (B. C. 336-323). *Obv.* Head of Heracles in lion's skin. *Rev.* As No. 59; see preceding description.

222. AR. Tetradrachm, of *Mazeus*, Satrap of Tarsus (B. C. 362-328); struck at Tarsus. *Obv.* Baaltars enthroned. Baaltars corresponded to Heracles. *Rev.* Lion walking.

Of all the divinities Apollo and Pallas are the most frequently represented on the coins, their worship being most widely spread and the most popular. For examples see:

APOLLO.

15. AR. Stater, of *Croton* (B. C. 550-480). *Obv.* Tripod, a symbol of Apollo. *Rev.* The same, incuse.

50. AV. Stater, of *Philip II* (B. C. 359-336). *Obv.* Head of Apollo. *Rev.* Biga.

204a. AR. Drachm, of Mausolus, Satrap of Caria (B. C. 377-353). Facing head of Apollo. *Rev.* Zeus standing.

230. AR. Tetradrachm, of *Seleucus IV*, king of Syria (B. C. 187-185). Apollo seated on omphalos.

PALLAS.

57. AV. Distater, of *Alexander the Great*. *Obv.* Head of Pallas, with Corinthian helmet. *Rev.* Victory with trophy and laurel branch.

130. AR. Tetradrachm, of *Athens* (B. C. 594-527). *Obv.* Head of Pallas Athena, an early crude work. *Rev.* Owl in incuse square.

137. AR. Tetradrachm of later date and finer art.

143. AR. Tetradrachm (B. C. 220-196). *Obv.* Head of Athena Parthenos wearing helmet with triple crest. *Rev.* Owl standing upon an overturned amphora. The head of Athena on this series of Athenian coins is almost certainly copied from the statue of Phidias in the Parthenon.

150. AR. Stater, of *Corinth*. *Obv.* Pegasus. *Rev.* Head of Pallas.

219. AR. Tetradrachm, of *Side* (B. C. 190-36). *Obv.* Head of Pallas with Corinthian helmet. *Rev.* Nike standing, holding a wreath.

ARTEMIS.

1. AR. Drachm, *Massilia* (B. C. 350). *Obv.* Head of Artemis. *Rev.* Lion.

83. AR. Tetradrachm, of *Macedon*, after conquest by Rome (B. C. 158-146). *Obv.* Bust of Artemis on Macedonian shield. *Rev.* Club within an oak wreath.

Struck for the *First Region*, the country being divided into four *Regiones*.

POSEIDON.

76b. AR. Tetradrachm, of *Demetrius Poliorcetes* (B. C. 306-283). *Obv.* Head of Demetrius. *Rev.* Poseidon with right foot resting on rock, supporting trident with left hand.

Practically all the divinities of Greece were represented on the coins, and not only the chief divinities but the lesser as well, and also including many a hero of Greek mythology. In addition to the above partial list may be mentioned: Dionysius, No. 91; Helios, 209; Pan, 78; also, Medusa, 44; a Silenos, 46 and 90; a Bacchante, 85, 126; and Europa, 179.

PORTRAITS ON GREEK COINS.

While the Greek states were free and independent, no coin type presented the likeness of a human being; the divinities most worshipped in the several city states were celebrated on the coins. The head of young Heracles on the silver coins of Alexander the Great has often been thought to present the features of the great Macedonian conqueror, and that may be true; but the earliest assured portrait on Greek coins is that of Alexander on the coins of one of his successors, Lysimachus, king of Thrace (B. C. 323-281). Thereafter portraits of the kings are usual on the coins, and they are faithful, often artistically powerful, representations. For example see:

99. AV. Stater, of *Lysimachus, king of Thrace*. *Obv.* Head of Alexander the Great. *Rev.* Pallas seated, bearing Nike (Victory) in extended right hand.

87. AR. Tetradrachm, of *Roman Province of Macedon*. After B. C. 146. *Obv.* Head of Alexander the Great. *Rev.* Insignia of a Roman Quaestor.

41. AR. 16 Litrae, of *Philistia*, wife of *Hieron* of *Syracuse* (B. C. 275-216). *Obv.* Veiled head of the queen. *Rev.* Quadriga.

See also the Seleucid kings of Syria, No. 227 and following; the Parthian kings, No. 276 and following; and the kings of Bactria, who are known almost solely from their coins.

322a. AV. Octodrachm, of *Ptolemy II* (B. C. 285-247). *Obv.* Heads of *Philadelphus* and *Arsinoe II*. *Rev.* Heads of *Soter* and *Berenice I*.

323. AV. Octodrachm, of *Arsinoe II*, *Obv.* Head of the queen. *Rev.* Double cornucopiae.

COINS OF HISTORICAL INTEREST.

While the artistic quality of the Greek coins has never been equaled in subsequent coinages, yet the *historical interest* of the Greek series is hardly second to any. A few examples will illustrate the historical value of these early coinages:

SYRACUSE.

40a. *Silver Stater* with the well-known types of the Corinthian silver coins; issued by *Timoleon* of *Corinth*, who was summoned by the people of *Syracuse* to free them from their tyrants.

MACEDON.

76a. A *Tetradrachm* struck by *Demetrius Poliorcetes* with types commemorating the naval victory gained by him over *Ptolemy* off *Cyprus* in B. C. 306. The Victory on the prow represents the famous Victory of *Samothrace* now in the *Louvre*.

Nos. 76b and 76c, with the splendid standing figure of *Poseidon*, commemorate the same victory.

50 and 51. *Gold Stater* and *silver Tetradrachm* of *Philip II*. The gold coins of *Philip* were the first important gold coinage in Europe. The two-horse chariot on the gold piece and the rider on the silver piece commemorate victories of the King's horses in the *Olympian Games*.

Nos. 319 and 321 illustrate the transition from the world empire of *Alexander the Great* to the several kingdoms that were built upon the ruins of that empire. The *Alexander* type—head of *Heracles* in lion's skin—is on the obverse of No. 319, on the reverse *Athena* and the signet of *Ptolemy*, *Alexander's* governor of *Egypt*; the name, too, of *Alexander* is on the coin. No. 321 has the head of *Ptolemy*; and the signet of the former coin, an eagle on thunderbolt, has become the full type; and the coin bears the name of "*Ptolemy King*."

JUDAEA.

266. *Silver Shekel* of *Judaea*, issued by the high priest, *Simon Maccabaeus* (B. C. 139-135). *Obv.* "*Sheke of Israel*" a chalice; above, "year 2." *Rev.* "*Jerusalem the Holy*" lily with three flowers.

This was the first coinage by the Jews, the shekel of gold or of silver mentioned in the earlier scriptures having reference to a weight of metal, and not to coins; yet foreign coins, as the Persian gold *Daric* (No. 298), often were used for payment, but were passed by weight and not by tale.

B. ITALY.

[Section 2.]

1. CENTRAL ITALY.

Nos. 1 to 5 are heavy bronze coins issued in Central Italy, but since they bear no inscriptions the exact places of origin are only conjectural.

No. 1. Triens. Thunderbolt and marks of value: o o o o i. e., four *unciae*. Rev. Dolphin, and marks of value. The *Triens* was equal to $\frac{1}{3}$ of the *as*, which was the unit.

2. ROME.

[Section 2.]

Rome began to coin money about B. C. 338, soon after the conquest of Antium, and the naval victory in that war may be commemorated by the prow on all denominations of the early bronze coins. Before that time the Romans had used foreign gold and silver money, and shapeless lumps of bronze, which of course were passed by weight. The earliest coinage was of bronze only, and the denominations were the *as*, which weighed a pound (Oscan) of 12 ounces (*uncia*) and its subdivisions, which are given in the table below. In the newly conquered Campania a mint was established at Capua for the coinage of silver and bronze. A little later the Capuan mint undertook an experiment with a bronze coinage of high denomination and abnormal form, issuing pieces of the value of six *asses* in the shape of oblong quadrilateral bars. These were not *necessity pieces* like the enormous Swedish copper *plate money* of more recent times, but rather a case of bad judgment regarding the requirements of a circulating medium.

In B. C. 268 silver was first coined in the mint at Rome; and in B. C. 49, during the civil war, the first gold was coined at Rome by Julius Caesar. Before that time gold only had been used for military coinages by generals in the field to meet the expenses of their campaigns. In fact Caesar's enormous gold coinage in the year 49 was in the nature of a military coinage, but its ultimate effect was to establish gold in the regular civil coinage of the country. The last important metal to be introduced into the Roman coinage was brass, the *oralchalum* of the ancients. It was first used in the military coinage of the provinces and introduced into the State coinage in B. C. 15. The large imperial *aesertius* and *dupondius* were struck in this metal.

The coinage of the republic was under the direction of the senate exercised regularly through the official *Trestrvi monetales*, briefly designated *IIIVIRI. A. A. A. F. F.*, i. e., *Triumviri auro argento aere flando fertundo*, or *Triumviri* in charge of refining and striking gold, silver, and bronze. But other officials also struck coins, chiefly by special authority of the senate, as the aediles, consuls, censors, praetors, and dictators.

Denominations.—Many changes took place in the monetary system of Rome between its inception in B. C. 338 and the reform introduced by Augustus in B. C. 15. These changes were due to repeated reductions in the size and value of the bronze coins and to the introduction of a silver coinage in B. C. 268 with the consequent adjustments and readjustments of the relative values between bronze and silver. The following tables show the most important systems in use at different periods of the republic:

B. C. 338 to 269.

AS (unit)=12 *unciae* (ounces) or i pound.
Semis (half)=6 *unciae*.
Quadrans (quarter)=4 *unciae*.
Triens (third)=3 *unciae*.
Sextans (sixth)=2 *unciae*.
Uncia=1 *uncia*.

For types and marks of value see below.

B. C. 268 to 217.

Silver:

Denarius=10 *asses*.
Quinarius=5 *asses*.
Sestertius=2½ *asses*.

B. C. 268 to 217—Continued.

Bronze:

All the denominations of the previous period were continued, though greatly reduced in size and value, and, in addition, large 2, 3, and 10 *as* pieces were issued, and also *half* and *quarter uncia* pieces. The silver and smaller bronze were struck.

B. C. 217 to 15.

Denarius=16 *asses*.
Victoriatus=12 *asses*.
Quinarius=8 *asses*.
Sestertius=4 *asses*.

The denominations of the bronze coins remain the same as in the previous period, but not all the denominations of either metal were struck throughout this period. Thus the *victoriatus* was struck from B. C. 229 to 172 when it was discontinued; the issue of the *gumnarius* was suspended from about 217 to 102, when the issue was resumed; and the *sestertius* was not struck from 217 to 88 B. C. when it was issued again in small quantities for about three years. The gold coin, *nummus aureus*, struck first in B. C. 49, was equivalent to 100 *sesterces* or 25 *denarii*.

Types.—The reverses of all the six denominations of the original bronze coinage bear a prow, a type that may allude to the capture of Antium, for the beaks (*rostra*) of the Antiate warships were brought to Rome in B. C. 338 and used to ornament the speakers' platform in the forum. About that same year the coinage was established.

Heads of divinities are found on the obverses; thus the head of Janus, the god of beginnings, is always on the *as*, the unit of the coinage; the *semis* (mark of value, S) bears the head of Jupiter; the *triens* (. . . .), head of Minerva; *quadrens* (. . .) Hercules; *sextans* (. .), Mercury; and *uncia* (.), Roma. The silver coins had at first the head of Roma on obverse and on reverse the Dioscuri on horseback. In the early part of the second century B. C. the monotony of the old Dioscuri type was broken by the introduction of Victory or Diana in a biga on some of the issues; and soon thereafter other divinities, as Juno, Mars, and Apollo, in the biga or the quadriga, appeared. In the early part of the second century the moneyers were accorded the right, or were required, to place their names on the coins; and in the latter part of the same century the moneyers received the right to select the types for their respective issues, and the types, more particularly the reverses, from that time on frequently represent historical events with which ancestors of the moneyer had to do. Later, contemporary events are represented.

ROMANO-CAMPANIAN COINS.

1. AR. Didrachm. Bearded and helmeted head of Mars to left. *Rev.* Horse's head r.; on truncation, label inscribed ROMANO.
3. AR. Didrachm. Head of Roma r., wearing Phrygian helmet. *Rev.* Victory naked to hips, standing and attaching wreath to palm branch; behind, ROMANO.
5. AR. Didrachm. Beardless head of Janus. *Rev.* Jupiter in quadriga driven by Victory, hurling thunderbolt; below, ROMA (incuse).
6. AR. Drachm. Similar types to 5.

THE MINT AT ROME.

BRONZE COINS ONLY.

B. C. 338 to 269.

1. AE. As. Head of Janus. *Rev.* On a raised disc, a prow to right; above, mark of value, I.

SILVER AND BRONZE COINAGE.

B. C. 268 to 217.

7. AR. Denarius. Head of Roma, wearing winged helmet; behind, mark of value X (=10 asses). *Rev.* The Dioscuri on horseback; below, ROMA on tablet.
8. AR. Sestertius. Types similar to preceding, but mark of value, IIS (=2½ asses).
- 9 and 138. AE. Uncia and Semuncia, respectively.

B. C. 217 to 172.

18. AR. Victoriatus. Head of Jupiter to right, laureate. *Rev.* Victory standing to right, placing wreath on a trophy.

B. C. 172 to 151.

19. AR. Denarius. Head of Roma to right, wearing helmet. *Rev.* Victory naked to the hips in biga; below, name of moneyer, SAFRA (Spurius Afra).

B. C. 150 to 125.

29. AR. Denarius. Head of Roma. *Rev.* The Dioscuri; moneyer, P. PAETVS.

Nos. 30, 35, and 39 are the earliest examples of types that celebrate events in the history of the moneyer's family. Such types became common later.

30. Ditto. Head of Roma. *Rev.* Juno Caprotina in biga of goats; moneyer, C. RENIUS. The family of Renius came from Lanuvium, where Juno Caprotina was specially worshiped.

32. Ditto. Head of Roma; behind, XVI (=16 asses). *Rev.* Victory in fast quadriga. Moneyer, C. VAL. C. F.—FLAC., *Caius Valerius, Caii filius, Flaccus*. This is the earliest known instance of the mark of value XVI instead of X on the denarius. Its value was changed in B. C. 217.

35. Ditto. Head of Roma. *Rev.* The royal shepherd Faustulus discovering the wolf suckling the twins, Romulus and Remus. Moneyer, Sextus Pompeius Fostlus, who claimed descent from the ancient shepherd.

39. Ditto. Head of Roma; behind, ROMA. *Rev.* Ionic column surmounted by statue of L. Minucius Augurinus; at sides togated figures; moneyer, C. AVG (urinus). The reverse type of No. 39 probably represents the monument erected in honor of that ancestor of the moneyer, who during the famine in B. C. 439 managed, as prefect of the grain market, to reduce the price of wheat.

B. C. 102 to 92.

53. AR. Quinarius. Head of Jupiter, laureate, to right. *Rev.* Victory standing to right, placing wreath on a trophy, supported by a seated captive, behind whom is a Gaulish trumpet; in exergue, Q(uinarius). The coinage of the Quinarius, suspended in B. C. 217, was revived in B. C. 101, with types similar to those of the earlier Victoriatus.

55. AR. Denarius. Bearded head of Saturn r.; around, PISO. CAEPIO. Q (*Quaestores*). *Rev.* Caepio and Piso, the quaestors, seated upon a *subsellium*, official seat; at each end, head of wheat. In exergue, AD. FRV. EMV. EX. S. C. i. e. "(Struck) by decree of the senate for the purchase of grain."

A special coinage authorized to purchase wheat that should be sold to the people at 5/6 of an *as* per *modius*.

63. Ditto. Serrated edge—a practice probably borrowed from Carthage; reason for it unexplained.

B. C. 91 to 89.

These coins were struck during the Social War, and some of them were special issues from metal taken from the reserve bullion in the national treasury, *aerarium*, as for examples:

75. AR. Denarius. Behind head of Roma, PV (=publice), and 76 ARG. PVB. (*argento publico*), i. e. "out of state silver funds."

Such special issues were of frequent occurrence down to the outbreak of the Civil War; thus issues by decree of the senate—EX S(enatus) C(onsulto), or simply S. C.—are found for the years B. C. 87–84, 82–79, 76–74, 72, and 69–62, and often by others than the regular moneyers as the Curule Aediles in B. C. 86, 84, and 69.

B. C. 78.

Special coinage of denarii for the various games issued by the moneyer, Marcus Volteius, M. VOLTEI. M(arci). F(ilius).

119. *Roman games (ludi Romani)* Head of Jupiter. *Rev.* Doric temple of Jupiter Capitolinus.

120. *Plebeian games (ludi Plebei)* Head of Hercules with lion's skin tied beneath chin.

121. *Cerealian games (ludi Cereales)* in honor of Ceres, Liber, and Libera. Head of Liber (Bacchus), crowned with ivy. *Rev.* Ceres in chariot drawn by two serpents.

B. C. 71.

135. AR. Denarius. Head of god of Good Fortune to right; before, BON(us). EVENT(us); behind, LIBO, i. e., the moneyer, Lucius Scribonius Libo. *Rev.* A well-head, ornamented with coiners' anvil; above, PVTEAL.; below, SCRIBON. (*Puteal Scribonianum*).

B. C. 59.

145. AR. Denarius. LIBERTAS. Head of goddess of liberty. *Rev.* BRVTVS. The consul, Lucius Junius Brutus, walking between two lictors, and preceded by an accensus. This was the Brutus who banished the kings from Rome, B. C. 509. The moneyer, Marcus Junius Brutus, was one of the assassins of Julius Caesar.

B. C. 58.

148. AR. Denarius. M. SCAVR(us). King Aretas kneeling beside his camel and extending olive-branch to his conqueror, Scaurus; in field, EX S. C. AED. CVR(ulis). *Rev.* Jupiter in quadriga 1.; above and below, P. HYPSEAEVS AED(ilis) CVR(ulis), C. HYPSEAE(us) COS. PREIVER(num) CAPT(um).

Special issues to defray expenses of games given by Scaurus as aedile in 58, and the first Roman coin types referring to events in the life of the moneyer.

B. C. 49 to 44 (the Civil War and ascendancy of Caesar.)

161. AR. Denarius. Head of Mars. *Rev.* Two Gallic trumpets, crossed; in angles, two shields, and the name of the moneyer, ALBINVS BRVTI. F. The Gallic trumpets on this coin refer to Caesar's campaigns in Gaul. The moneyer is Decimus Junius Brutus, later one of Caesar's assassins.

166. Denarius. Head of Vercingetorix, the Gaulish chief conquered by Caesar. *Rev.* Naked warrior in fast biga; moneyer, L. HOSTILIVS. SASERN(a).

168. Denarius. Head of Pietas r. wearing wreath of oak-leaves; behind, LII(=52, Caesar's age). *Rev.* Trophy of Gallic arms; in field, ax, and CAE-SAR. Struck in Rome immediately after Caesar's arrival there following flight of Pompey.

The Triumph of Caesar in B. C. 46.

171. Denarius. Head of Triumphus; below, TRIVMPVS.

172. Ditto. *Rev.* Hercules Triumphalis walking to right.

B. C. 45.

176. Ditto. Head of Juno Moneta; behind, MONETA. *Rev.* Coining implements: anvil, hammer, and tongs; above, coining die (or cap of Vulcan?).

B. C. 44—Caesar, Perpetual Dictator.

180. Ditto. Laureate head of Julius Caesar; around, CAESAR—DICT(ator). PERPETVO. *Rev.* Venus standing, holding a Victory on right hand and leaning with l. on scepter.

B. C. 43—Peace under First Triumvirate.

184. Ditto. Head of Julius Caesar, laureate, to right. *Rev.* Pax (Peace), holding caduceus and leaning on scepter; moneyer, L. FLAMINIVS IIII.VIR.

B. C. 36—Beginnings of the Empire.

196. Ditto. Head of Pax. *Rev.* CAESAR DIVI F(ilius). Octavius in military dress advancing to left.

B. C. 29-27—Triumph at Rome; Title of Imperator.

198. Ditto. Victory standing on a prow. *Rev.* IMP(erator) CAESAR. Octavius in triumphal car, drawn by four horses.

199. Ditto. Head of Octavius to right. *Rev.* Triumphal arch, surmounted by a quadriga bearing Octavius; on frieze of arch, IMP. CAESAR.

COINAGE OF ITALY, OUTSIDE OF ROME.

When Rome introduced a silver coinage in B. C. 268, and at the same time reformed the bronze coinage and made it more suitable for commercial purposes, the numerous local mints in southern Italy with few exceptions were closed. Thus it fell to the Roman mint to provide all the silver and nearly all the bronze money for the entire country, a burden that soon proved too great, especially in times requiring large supplies of money, as during the two Punic Wars and the Social War, so that local or really branch mints were established in various south Italian cities. These mints supplied chiefly the money needed in the military operations attending the extension of the Roman sway over the States of Italy. Another military coinage in Italy was more closely associated with operations of the army, being considerable during the Second Punic War and very extensive during the Social War. At the close of the Social War (B. C. 92-89) all the local mints throughout Italy were closed.

This Italian coinage was always closely related to that of the mint at Rome. The head of Roma is found on the Denarius until the period of the Social War, when it is almost supplanted by heads and busts of numerous gods and goddesses, as well as of historical personages.

COINAGE OF THE ALLIES DURING THE SOCIAL WAR, B. C. 91-88.

In 91 B. C. the various States of Italy formed a confederation and undertook to set up an independent government in which all burgesses should have all the rights of citizens, rights which had been denied them by Rome and for which the revolt was organized. The capital of the confederation was established at the city of Corfinium, whose name was changed to *Italia*. During the three years' struggle between the revolting States and Rome there were several issues of *denarii*, chiefly military, but probably also from a State mint at Italia and also from a number of local city mints. These coins were struck on the same standard as the Roman, and the legends are in Latin and Oscan.

249. AR. *Obv.* Laureated head of Italia (the city) to left; behind, ITALIA (in Oscan) (reading downward and retrograde). *Rev.* A warrior standing, his right hand resting on a spear with point downwards on ground; he looks to right toward a recumbent bull; in exergue, letter >(C).

MILITARY COINAGES IN THE PROVINCES.

A. SICILY.

During the Civil War (B. C. 49 to 36) there were several issues of military coinages in Sicily by commanders of both factions in turns, but chiefly by Sextus Pompey.

255. AR. Denarius. Head of Pompey the Great; in front, trident; below, NEPTUNI ("Son of Neptune," a title of Sextus Pompey). *Rev.* Galley moving to left; below, Q. NASIDIVS, a naval commander of the Pompeian party.

B. SPAIN.

Military coinages in Spain were struck during the war with Sertorius, B. C. 82-72; and during the civil wars of B. C. 49 and B. C. 46-44.

(a) *The Sertorian War (B. C. 82-72).*

257. Denarius. Bust of Anna Perenna to right; around, C. ANNI. T(iti). F(ilius). T. N(epos). PRO. COS. EX. S(enatus) C(onsulto). *Rev.* Victory in quadriga; in exergue, L. FAB(ina) L. F. HISP(anica)-Q(uaestor).

259. Ditto. Bust of Genius of the Roman People, with portrait of Sulla(?); above, G. P. R. (= *Genius Populi Romani*). Rev. Globe between rudder and scepter, the last two being emblems of Fortuna.

(b) *War between Caesar and Pompey the Great (B. C. 49).*

260. Ditto. Bust of Jupiter Terminalis. Rev. Scepter between eagle (=legions) and dolphin (=fleet). The type refers to the necessary cooperation of the two forces.

(c) *Second Civil War (B. C. 46-44).*

Denarii and bronze asses of Sextus Pompeius Magnus.

(d) *The Cantabrian War of Augustus (B. C. 23-22).*

265. Denarius. Head of Augustus. Rev. A double gateway; above gate, EMERITA; around, P CARISIVS LEG PRO PR (Propraetor). Relating to founding of city of Emerita for soldiers of V and VII legions whose terms of enlistment had expired (*emeritus*).

GAUL.

The Roman coinages in Gaul were chiefly those of Valerius Flaccus as propraetor in B. C. 82; of Caesar just following his Gallic campaigns; and during the Civil War the issues by Antony and Octavius.

(a) *C. Valerius Flaccus, Propraetor.*

266. Denarius. Bust of Victory. Rev. Legionary eagle between two standards; EX. S. C. (*Ex senatus consulto*).

(b) *By Julius Caesar (B. C. 50-49).*

267. Denarius. Elephant (*Caesar*) trampling on a dragon (*Gallia*); in exergue, CAESAR. Rev. Pontifical emblems: ax, sprinkler, and jug.

(c) *By Octavius, During Second Triumvirate (41-36).*

268. Denarius. Head of Octavius; around, C. CAESAR. COS. PONT(ifex). AVG(ur). Rev. Laureate head of Julius Caesar to right; around, C. CAESAR. DICT(ator) PERP(etuo) PONT. MAX. Struck in honor of Julius Caesar.

271. Ditto. Draped bust of Mars, with crested helmet; around, CAESAR III VIR R. P. C. (*rei publicae constituendae*). Rev. Trophy surmounted by legionary eagle; in field, S. C.

272. AE. Sestertius. Bare head of Octavius: CAESAR-DIVI F. Rev. Deified head of Julius Caesar: DIVOS-IVLIVS. One of the early brass coins, a metal later coined at Rome.

276. AV. Aureus. Bare head of Augustus to right; around, AVGVSTVS DIVI F. *Rev.* Apollo performing on lyre; in field, IMP(erator). X.; in exergue, ACT(ium). Commemorates the Battle of Actium, Sept. 23, 31 B. C.

THE ORIENT.

The first Roman coinage in the East was that issued by the financial officers of Sulla for the Mithradatic wars, B. C. 82-81, followed 20 years later by the gold coinage of Pompey in the war against the pirates, and finally in large quantities during the civil wars. The types of this eastern coinage are particularly interesting for the portraits of many prominent personages, as Sulla, Lucius and Marcus Junius Brutus, Lucius and Marcus Antony, Octavius and Octavia, Labienus, and Cleopatra, as well as alleged portraits of other historical personages.

(a) *Sulla's Triumph over Mithradates (B. C. 81).*

278. Denarius. Head of Roma; around, L. MANLI(us)-PRO-Q(uaestor). *Rev.* Sulla in triumphal car; above, flying Victory; in exergue, L. SVLLA. IM(perator).

(b) *Following Battle of Pharsalus (B. C. 48).*

281. Denarius. Head of Venus. *Rev.* Aeneas naked, walking to left, carrying Palladium of Troy and his father Anchises. The types refer to Caesar's claim of a Trojan origin for his family.

(c) *Coins of Marcus Junius Brutus (B. C. 43-42).*

282. Denarius. Ceres. *Rev.* Tripod; sacrificial implements.

282a. Ditto. LIBERTAS Head of Libertas to right. *Rev.* CAEPIO. BRVTVS. PRO. CO(n)S(ule) Lyre between plectrum and laurel-branch. Struck in Greece.

283. Ditto. Apollo. *Rev.* Trophy; BRVTVS IMP.

284. Ditto. Head of Neptune; CASCA-LONGVS. *Rev.* BRVTVS-IMP. Victory with palm on left shoulder, holding broken diadem; at feet, broken scepter.

(d) *Coins of Mark Antony, as Member of Triumvirate (B. C. 41, and 38-37).*

285. Denarius. Head of Antony. *Rev.* Head of Octavius.

286. AR. "Cistophoric Medallion," B. C. 39, referring to marriage of Antony and Octavia. Head of Antony, wearing ivy wreath; around, M. ANTONIVS. IMP. COS. DESIG. ITER. ET. TERT. *Rev.* Between two serpents a cista mystica surmounted by bust of Octavia; at sides, III. VIR.—R(ei). P(ublicae). C(onstituendae).

287. Ditto. Same legend; heads of Antony and Octavia, conjoined, to right. *Rev.* Similar to preceding, but Bacchus standing upon the cista.

288. Ditto. Antony as augur, standing r. *Rev.* Head of Sol.

289. Denarii. Galley. *Rev.* Military standards. Struck when preparing for the final struggle with Augustus, the battle of Actium.

(c) *Coinage of Augustus (B. C. 29-27)—Peace Restored.*

290. Denarius. Head of Octavius. *Rev.* Pax holding olive branch and cornucopiae; around, CAESAR DIVI. F(ilius).

291. Quinarius. Head of Octavius. *Rev.* ASIA RECEPTA Victory holding wreath and palm-branch, standing on cista mystica.

292. "Cistophorus," medallic piece of B. C. 28. Laureated head of Octavius, the "Vindicator of the Liberty of the Roman People," LIBERTATIS P. R. VINDEX. *Rev.* Within a laurel wreath, Pax standing, and a cista surmounted by serpents.

AFRICA.

The Roman coinage in Africa in Republican times was issued by the Caesarian and Pompeian parties to the civil conflict and in the years B. C. 47-36.

(a) *The Pompeians, Scipio and Cato (B. C. 47-46).*

299. Denarius. Head of Jupiter; around, Q. METEL(lus) PIVS. *Rev.* African elephant; SCIPIO-IMP.

(b) *Julius Caesar, after Battle of Thapsus (B. C. 46).*

307. Denarius. Head of Ceres; around, DICT. ITER-COS. TERT. *Rev.* Emblems of the pontificate and augurship; PONT (ifex) MAX (imus)-AVGVR; in field, D(onativum) i. e. struck for a largess to the soldiers.

(c) *Coins of the Triumvirs, Lepidus and Octavius.*

315. Denarius. LEPIDVS. PONT. MAX. III. VIR. R. P. C. Head of Lepidus. *Rev.* Head of Octavius; around, CAESAR. IMP. III. VIR. R. P. C.

THE ROMAN EMPIRE (B. C. 27).

[Section 2, lower case.]

The coinage of the Roman Empire is virtually a continuation of the coinage which stress of circumstances and the assertiveness of partisans and party leaders had brought forth during the civil wars that put an end to the Republic and ushered in the monarchy. Thus, portraiture of living personages, which first appeared on Roman coins in those years of confusion (B. C. 44), became a regular feature of the imperial coins; the practice of commemorating contemporary events on the reverses of the civil war coinages was greatly extended in Imperial times, the coins of Hadrian bearing record of numerous imperial journeys and administrative measures; and the monetary reform of Augustus in B. C. 15 was chiefly a legalization of certain irregular practices of the warring parties, as the coinage of gold, and of the brass (*orichalcum*) *sestertius* and *dupondius*, which had appeared in the military coinages in the provinces.

Under the new arrangements of the year 15 the right to coin the precious metals was accorded to the Emperor, while to the senate was left the authority to coin the base metals, a power it held until the reign of Aurelian (A. D. 270-276), and which is always indicated by the letters S. C. (*senatus consulto*) on the brass and bronze coins.

The gold and silver coins of the Republic and of the early years of the Empire were of as pure metal as the refining processes of the time could produce, but in the reign of Nero there began a debasement of the silver *denarius*, both in weight and fineness, which in spite of several attempts at reform finally resulted in a piece that was pure copper with only a silver wash that soon disappeared. The gold coins were but slightly debased at any time throughout the long period of the Empire.

Denarius, of *Augustus (B. C. 27-A. D. 14)*. CAESAR AVGVSTVS Head of Augustus to right, wearing oak wreath (which was decreed him by the senate). *Rev.* Comet of eight rays and tail; between rays, DIVVS-IVLIVS. The reverse type refers to the

appearance of a comet, perhaps Halley's, over Rome in B. C. 44, and not long after the death of Julius Caesar.

AE. Sestertius, of *Tiberius* (A. D. 14-37). Head to left. *Rev.* ROM (ae) ET AVG(usto). An altar between two cippi, each surmounted by a Victory. The worship of the emperor and (the goddess) Roma was established in the provinces in the lifetime of Augustus. This may be the great altar at Lyons.

345. AR. Double-denarius, *Nero*. Laureated bust to right. *Rev.* Temple of Janus, closed; around, PACE P(opulo) R(omano) VBIQ(ue) PARTA IANVM CLVSIT.—"Peace everywhere secured for the Roman people (the emperor) closed the temple of Janus."

344. AE. AS. Similar to last.

386a. AE. Sestertius, of *Vespasian*. Bust laureate to right. *Rev.* Captive Judaea seated r. beneath a palm tree, and guarded by a Roman soldier standing on left of tree; around, IVDAEA CAPTA.

426. AV. Aureus, of *Plotina*, wife of Trajan. PLOTINA AVG. TRAIANI. Bust, diademed, to right. *Rev.* Vesta seated left.

428. AV. Aureus, of *Plotina* and *Matidia*, sister of Trajan. Similar to last. *Rev.* MATIDIAE. Bust diademed, r. The wife, mother, sisters, and daughters of an emperor received the title *augusta* and often coins were struck in their honor.

439. AS. *Hadrian*. Laureated head to right. *Rev.* HISPANIA. Female figure, Spain, reclining left.

445. Denarius, of same. *Rev.* Hadrian lifting up kneeling Spain.

446. Ditto. *Rev.* RESTITVTORI HISPANIAE. Hadrian standing to right.

Coin types referring to Hadrian's journeys in the provinces are numerous. Also personifications of the provinces are frequent. The monetary reforms of Caracalla introduced the new denominations:

536. Antoninianus, of *Julia Domna*, Mother of Caracalla. Bust diademed to left in a crescent. *Rev.* VENVS GENETRIX. Venus seated.

539. Antoninianus, of *Caracalla* (A. D. 211-217). Radiate bust to r. *Rev.* Jupiter, nude, seated r.

The monetary reforms of Diocletian (284-305) brought in the new denominations:

709. AR. Miliarensis. Laureated head r. *Rev.* VIRTVS MILIT(um). Four soldiers sacrificing at a tripod.

713. AE. Follis, of *Maximian* (A. D. 286-305). Bust r. *Rev.* GENIO POPVLI ROMANI. Female figure with turret crown.

722. AV. Solidus, of *Constantine the Great*. Diademed head r. *Rev.* IOVI CONSERVATORI AVG. Jupiter standing l.

743. AV. Solidus, of *Julian the Apostate* (360-363). Draped bust r. *Rev.* Julian walking to right.

THE EASTERN ROMAN EMPIRE.

[Section 3, lower case.] One of the features that soon marked the types of the Byzantine coins was the representation of Christian emblems and also of Christ and the Virgin Mary. The coinage is further interesting because of its faithful reflection of Byzantine art, and for certain peculiar fabrics, such as the cup or saucerlike pieces, No. 831.

786. AV. Solidus, of *Anastasius* (A. D. 491-518). DN (dominus noster) ANASTASIVS P. P. (perpetuus) AVG(ustus). Beardless bust to right. *Rev.* VICTORIA AVGGG(ustorum). Victory holding cross surmounted by Christian monogram.

788. AE. 40 Nummia, of same. *Rev.* Large letter M (40), the mark of value; at sides, stars, above, cross.

816. AV. Solidus, of *Michael III* (842-867). Crowned bust facing. *Rev.* Draped bust of Christ, facing. Compare also, No. 823, bust of Christ facing; 825, the Virgin nimbate standing by crowned bust of the Emperor; and the Nomisma, No. 829, with Christ seated on throne.

831. AV. Nomisma, of *Nicephorus III* (1078-1081). A *nummus scyphatus* or cup-shaped coin. Crowned bust. *Rev.* Christ, nimbate, seated.

EUROPE.

GREAT BRITAIN.

[Section 4.]

The first coinage in the British Isles took place early in the first century B. C., and consisted of a rude imitation of coins circulating in Gaul, which were in turn descended through a succession of barbarous imitations from the widely used coins of Philip II of Macedon. After Roman conquests were made in the islands of course Roman coins came into use, and in the reign of Carausius (A. D. 287-293) over Britain and part of Gaul, mints were established at London and Colchester. No Roman coins were struck in the islands later than A. D. 388, but Roman coins, struck elsewhere, were undoubtedly used until the Anglo-Saxons struck coins, about A. D. 575.

The coins of the Anglo-Saxons, chiefly silver *sceattas*, followed very closely the model of the gold coinage of the Merovingian kings of France. After the reform of the French coinage by Pepin (A. D. 752-768), Offa, King of Mercia (A. D. 757-795), soon replaced the *sceat* with the *penny*, the notion for which was taken from the *denier* of the new French coinage system. This beginning led ultimately to the adoption of the entire Carolingian system in England. That system consisted of a libra (pound)=20 solidi (shillings)=12 denarii (pennies). During the Roman and Saxon periods, no coins were struck in Scotland or Ireland. The first coins struck in Ireland were from the mints of the Norse kings at Dublin.

The coinage of gold was introduced in England by Edward III, A. D. 1327-1377, which was nearly a century after the restoration of gold on the Continent (1252) and the vain attempt of Henry III to coin gold in 1257. The first gold coins were the *noble*, its half, and the quarter, with the type of the king in armor standing in a ship, suggested perhaps by the naval victory of Sluys (1343); on the reverse is the passage from Luke's Gospel: *IN HOC AVTEM TRANSIENS PER MEDIUM ILLORVM IBAT* (But He passing through the midst of them went His way), which was then used as a charm against thieves. Subsequently many other gold denominations were added, as the *angel*, with the type of Michael slaying the dragon, used as a *touch-piece* for the cure of the king's evil; the *royal*: the *sovereign* of 30 shillings; the *unite* or *laurel*, intended for circulation in both England and Scotland; the *guinea*, which was so named because largely produced from gold supplied by the Guinea or African Trading Co.; and in the reign of George III the new *sovereign* of 20 shillings.

Besides the royal coinage there was the coinage of the Commonwealth and of Cromwell, and the numerous issues of *necessity* and *siege* pieces, chiefly during the civil wars, 1649-1660.

In the thirteenth century a small silver coin was issued that became known as the *sterling*, a term of much-debated origin. Issued at a time when the silver coinage of Europe was generally debased, its superior standard gained for it a wide acceptance and so wide an imitation that it became in effect an international coinage. The types of the coin were a facing head and a long cross with three annulets or stars in the angles. In commerce the *sterlings* passed by the pound, whether by tale or weight is not certain, and the popular name of those excellent coins still survives as an expression of standard in the term "pounds sterling."

1. Early bronze, an imitation of a Gallic bronze piece. Head: Horse.
2. *Sceatta*, of *Mercia*. Head to right: T o T, etc., in square.
3. AR. Penny, of *Aethelbearht* (856-866), king of *Wessex*. Head right: DVDVINE MONETA between arms of cross.
4. AR. Penny, of *Alfred the Great* (872-901.)+ELFRED REX. Short cross. Rev. Name of moneyer.

5. AR. Penny, of *Eadred* (946-955), EADRED REX small cross—HVNR/x x x/ED MO pellets above and below.

6. AR. Penny, of *Cnut* (1016-1035). CNVT REX ANGLOR. Bust to left. *Rev.* ÆLPINE ON LVND (Aelfwine of London) Long voided cross.

7. AR. Penny, of *William I or II*, 1066, the *Conqueror* or son. Facing bust, crowned—Cross. The types of the coins of William I were continued on the coins of his son.

13. AR. Penny, of *Henry III* (1216-1272). Facing head—CANT. Short cross.

14. Penny, of the same, with a *long* cross. The arms of the cross were lengthened at this time, and made to extend to the edge of the coin, a device which incidentally prevented clipping.

19 a-b. Halfpenny, and farthing, of *Edward II* (1307-1327), produced by cutting pennies into halves and quarters respectively. In this common practice the "long cross" mentioned under No. 14 also served for guiding the shears.

20. Quarter noble, gold, of *Edward III* (1327-1376). Shield of arms—EXALTABITVR IN GLORIA Cross. The first successful issue of gold coins in England was made by this monarch in 1343. Henry III had tried to introduce a "gold penny" in 1257, but the issue proved unpopular and the project was abandoned.

21. AR. Groat (London). Facing bust, crowned. *Rev.* Long cross, with pellets in angles. In this reign occurred the first issue of the Groat (1351), the coin corresponding to the *Gros Tournois* of France, and the *Groschen* of Germany.

22. AV. Royal d'or, of *Edward the Black Prince* (1362-1376). The prince standing facing—Cross. Struck in France.

34. AV. Sovereign, of *Henry VIII* (1509-1553). The king seated—Crowned arms.

44. AR. Shilling, of *Philip and Mary* (1554-1558). Busts *vis-à-vis*—Oval arms of England and Spain.

45. AV. Sovereign, of *Elizabeth* (1558-1603); value, 30 shillings. Queen crowned, seated—Shield of arms.

52. AV. Laurel, of *James I* (1603-1625); value, 20 shillings. Bust with *laurel* wreath on head—Crowned arms.

63. AV. 5 shillings, of *Charles I* (1625-1649). Crowned bust—Crowned arms.

64. AR. Pound, 1642, of same. *Necessity piece coined at Oxford from the silver plate of the universities.* The king mounted on horse—On a scroll, RELIG. PROT. LEG./ANG. LIBER. PAR., being an allusion to his *declaration* to "protect the protestant religion, laws and liberties of his subjects, and privileges of parliament."

67. £. Shilling, 1645; *Siege piece* of Newark; struck to meet the urgent demand for money when the city was besieged by the parliamentary army during the Civil War.

72. £. Half-crown, 1654, of the Commonwealth. THE COMMONWEALTH OF ENGLAN Shield bearing cross of St. George. *Rev.* GOD WITH VS. Two shields.

74. £. Broad, 1656, of Cromwell. Laureated bust of the Protector to left. *Rev.* Arms of Protectorate *crowned*.

79. AR. Guinea, 1667, of Charles II (1660-1685). The "guinea" derives its name from the fact that the gold of which it was coined came from Guinea in Africa, whence it was brought by the African company.

Milled coins.—Until the second year of Charles II, the coins of England were struck by means of a hammer, and the planchets or blanks were cut out with shears.

In 1662 a contract was made with Peter Blondeau to erect and operate the newly invented coining machinery in the Tower mint, and from that time the coins were "milled" instead of hammered. Also a machine punch supplanted the shears as a means of shaping the planchets. The "Mill and Screw" had been used for a short time in the reign of Elizabeth, but had to be abandoned.

87-89. AR. Groat, Threepence and Twopence; Maundy Money. A part of His Majesty's Royal Maundy gifts which are distributed on Maundy Thursday by the lord high almoner, and consists of a payment, in silver coins of the denominations of 4, 3, 2, and 1 pence pieces, of as many pence as the sovereign is years of age to a like number of persons of both sexes, over 60 years old, who have at some time given employment to others and have paid rates and taxes.

93. AV. "Touch-piece," undated, of James II (1685-1688). *Obv.* A ship sailing left. *Rev.* SOLI. DEO. GLORIA. St. Michael slaying the dragon. Pierced. The practice of "touching" for the cure of scrofulous diseases dates from Edward the Confessor; and was kept up by his successors, with the exception of William and Mary, until the accession of the House of Brunswick. After the ceremony of "touching" a gold coin, usually the *Angel*, was suspended about the neck of the afflicted person.

100. Crown, brass, 1690. Necessity piece, coined in Ireland from brass and copper implements and from brass cannon; from which the name "Gun money."

101. AR. Crown, of Anne (A. D. 1702-1714). Beneath the bust, VIGO, because made from silver captured from the Spanish in Vigo Bay in 1702.

106. AR. Shilling, 1723, of George I (1714-1727), with SS-C in the angles of the cross formed by the position of the shields of arms, and designates the South Sea Co., from which the silver was derived.

130. AV. Two-guinea piece, 1748, of George II (A. D. 1727-1760).

131. AR. Shilling, 1746. Beneath the bust, LIMA, because the silver was captured from the Spaniards by the British privateersmen, "Duke" and "Prince Frederick"; "Lima" refers to the mint at Lima, Peru.

142. AV. "Spade" guinea, 1787, of George III (A. D. 1760-1820). Called the "Spade Guinea" because of the spade-shaped shield of arms.

144. AV. Sovereign, 1818. *Rev.* St. George slaying the dragon.

147. AV. Seven-shillings, 1808. Bust. *Rev.* Crown and date.

164-165. AE. Twopence and penny, 1797. The first issue of these denominations in copper. The twopence, which weighed 2 ounces avoirdupois, was soon discontinued as too cumbersome.

170. AV. Double-sovereign, 1826, of George IV (A. D. 1820-1830). The double-sovereign was first issued in this reign.

211. AR. Florin (Two shillings), 1849. First issue of this denomination. Legend on obverse, VICTORIA-REGINA 1849, the

usual *Dei Gratia* being omitted, hence they were popularly called "The Godless Florins."

240 to 250. Jubilee coinage of 1887, including the double-florin which only was issued from 1887 to 1890.

251 to 257. Jubilee coinage of 1893.

277 to 280. Patterns of private origin.

BANK OF ENGLAND TOKENS.

281 to 282. AR. These are Spanish coins restruck before being put into circulation to meet the urgent demand for coin after the Bank of England had in 1797 suspended payments in cash; scarcity of coin had caused the suspension.

BANK OF IRELAND TOKENS.

288 to 292. AR. Struck from Spanish coins, because of the depreciation of the silver currency. Withdrawn in 1817.

SCOTLAND.

Upper case.

404. AR. Penny, of *William the Lion* (A. D. 1165-1214). Crowned head to left;—Cross.

411. AR. Groat, silver, of *Robert II* (1371-1390). Crowned bust;—Long cross.

419. AR. "Sword Dollar," silver, 1570, of *James VI* (1567-1625). *Obv.* Arms of Scotland. *Rev.* Crowned sword.

FRANCE.

Gaulish coins.—The early coins of Gaul, later France, were rude copies of Greek coins, especially of the gold staters of Philip II of Macedon. It was chiefly a gold coinage.

Roman coins.—Even before the conquest of Gaul the Roman silver denarii were common in the country, brought thither in large quantities by merchants. After the final pacification of the country, Roman coins formed its circulating medium, and a number of imperial mints were established in that province.

Merovingian coins (A. D. 447-752).—The coinage of the Frankish kings in the territory won from the ruins of the empire in the West was almost exclusively of gold. The denomination was the triens or one-third of the solidus of the Lower Empire. The coins seldom bear the name of the king, but only of the mint master and name of place of minting. Mints were numerous.

Carlovingian coinage.—In the latter part of the preceding epoch gold began gradually to give place to silver, and in the reign of Pepin the Short (A. D. 752-768) silver became the exclusive coinage of the kingdom. The denominations were the *denier* and its half, the *obole*, struck on a new system of 240 of the former to the pound of silver. The closing of local mints begun by Pepin was carried much further by Charlemagne, and finally the royal coins became the prevalent but not the only ones in circulation. In the reign of Eudes (A. D. 887-898) the first baronial coinage appeared, and in a few years the coins of the feudal barons, church authorities, and cities, issued from hundreds of mints, almost crowded out the royal coinage.

Reforms, and modern coinage.—The greed for profits among the thousands of irresponsible coiners soon resulted in a greatly debased coinage and monetary chaos. To remedy that condition St. Louis issued, in 1260, two new coins, a gold *ecu* and a good silver coin called a *gros* (grossus), because it was larger than the current *denier*, and *gros tournois*, because it was first struck at the city of Tours. The new coin was really the *solidus* (shilling) of the earlier Carlovingian system. The example was soon widely followed in the *groschen* coinage of Germany, and much later by the *groat* in England. In 1513 Louis XII added a still larger silver coin, the *blanc*, to the series, having for obverse type the bust (*teste*) of the king, and so generally

called a *teston*; and under his successor, François I (1515-1547), French coinage became entirely modern. In 1646 Louis XIV struck the *Louis d'or*, which became one of the widely known pieces of the series.

Until the beginning of the seventeenth century the old process of striking with the hammer was still employed. The efforts of Nicolas Briot (1606-1625) to replace the shears and hammer with the mill and screw to cut the planchets and stamp the coins proved ineffectual and he went to England to escape persecution and find acceptance for his new devices; but the machines soon proved their efficiency, and in 1645 the further use of the hammer was forbidden by law.

The coinage of the Revolution (1791-1793) was specially marked by the reverse type of the *Louis d'or* and the *écu*, No. 76. The circulating medium of the time was chiefly the assignats, inconvertible paper money secured by the national domain, which was largely taken from the clergy. In 1795 the Assembly of the Republic introduced a new coinage with the decimal system. The unit was the *franc*, and the system is virtually that of the Latin Monetary Union, adopted by France, Belgium, and Italy in 1866, and to which Switzerland was admitted in 1868.

[Section 7.]

(a) Early Gaulish coins.

(b) Coins of the Merovingian kings.

1. AR. Denier, of *Charlemagne* (A. D. 768-814). Cross—Monogram.

12. AR. Gros Tournois, of *Louis IX* (1226-1270). Cross—Chapel.

18. AV. Pavillon d'or. *Philip VI* (A. D. 1328-1350). King seated beneath a canopy—Cross fleury.

26. AV. Ecu d'or au porc-épi, of *Louis XII* (1498-1515). Crowned shield of arms, supported by two porcupines.—Cross with porcupines and two L's in angles.

29. AR. Teston, of *François I* (1515-1547). Crowned bust r.—Crowned shield of arms.

38. AV. Ecu d'or, of *Charles X*, of the *League*, 1592. *Obv.* CAROLVS—FR. ANCOR(um). REX Crowned arms. *Rev.* CHRISTVS. REGNAT. VINCIT. ET IMPERAT Cross.

45. AV. Demi Louis d'or, 1641, of *Louis XIII* (1610-1643). Bust to right.—Four pairs of LL's, crowned, in form of cross.

47. AV. Double Louis d'or, 1710, of *Louis XIV* (1643-1715). Similar to No. 45.

52. AR. Ecu Blanc, 1680, of the same.

Coinage of the Revolution.—76. AR. Ecu de Six Livres, l'an 4, 1792, of *Louis XVI*, as constitutional Monarch (1791-1793). *Obv.* LOUIS XVI ROI DES FRANÇOIS Bust of king to left. *Rev.* REGNE DE LA LOI, Genius of France, inscribing upon tablet CONSTITUTION with the scepter of reason (indicated by open eye); at sides, fasces and cock, symbols of union and vigilance.

90. AR. 5 Francs, 1797, of *First Republic* (1792-1804). UNION ET FORCE; Hercules uniting Liberty and Equality.—In a wreath, 5 /FRANCS/ L'AN 6.

99. AV. 40 Francs, l'an 12, of the *Consulate*. BONAPARTE PREMIER CONSUL Bust to left.—REPUBLIQUE FRANCAISE Value in a wreath.

104. AV. 40 Francs, l'an 13 (1804), of the *First Empire*. NAPOLEON EMPEREUR Bust to left—(As No. 99).

106. Ditto, 1811. As preceding, but on reverse EMPIRE FRANCAIS, which replaced the "Republique Française" in 1808.

First Restoration, *Louis XVIII*, 1814.—118. AV. 20 Francs, 1815. LOUIS XVIII ROI DE FRANCE Bust to r.—Arms.

Return of Napoleon, "The Hundred Days."—121. AV. 20 Francs, 1815. NAPOLEON EMPEREUR, His laureated bust.—EMPIRE FRANCAIS Value in wreath.

The Restoration.—The arms of France restored on the gold and silver coins of Louis XVIII, Charles X, and Louis Philippe.

137. AR. 5 Francs, 1831, of *Henry V.*, the *Pretender*. Obv. HENRI V ROI DE FRANCE Bust 1. Rev. Crowned arms, value and date.

The Second Republic (1848-1852).—150. AV. 20 Francs, 1848. Genius of France inscribing CONSTITUTION—LIBERTE. EGALITE. FRATERNITE.—Value.

The Empire Revived.—160. AV. 100 Francs, 1855, of Napoleon III (1852-1873).

The Third Republic, 1870.—201. AV. 20 Francs, 1899. Bust of The Republic—Cock. By Chaplain.

210. AR. 2 Francs, 1902. The sower (*semeuse*).—Value. By Roty. Chaplain, Roty, and also Daniel Dupuis who engraved the bronze coins, are three of the most eminent contemporary French medalists.

ITALY.

[Section 6.]

After the fall of the Western Roman Empire the Ostrogothic conquerors governed Italy for a little more than half a century, during which time they issued coins, first with the obverse type of the Imperial Byzantine coins, later Thodath (A. D. 534-536), replacing the bust of the emperor with his own. This Ostrogothic coinage consisted of a gold *solidus* and *triens*, and silver *silica* and *half-silica*.

Soon after the middle of the sixth century the Ostrogoths were followed by the Lombards, who held the country until they were in turn subjugated by the Franks. The coinage of the Lombards was chiefly in gold, the types being the bust of the prince on the obverse and on reverse St. Michael or an angel holding a helmet. When at last Charlemagne had conquered the Lombards he established a kingdom in Italy and placed on the throne his infant son, Pepin (754-774). The Frankish coinage which followed extended until the middle of the tenth century, being struck at six mints; and in addition the imperial title appears on the coins struck in other Italian mints of the time.

The suzerainty of the Franks in Italy was followed in turn by that of the Saxon, Franconian, Hohenstaufen, and Hapsburg emperors, whose nominal authority was widely recognized on the local municipal and republican coinages. From an early date the coinage of the states of the church was issued by authority of the Popes.

NAPLES AND SICILY.

212. AR. Carlin of *Ferdinand I.*, of Naples. Bust r.—DRAGON.

219. AR. Double Scudo, 1732, of *Charles III* (VI of Germany). Laureated bust.—Phoenix.

228. AV. 6 Ducats, 1785, of *Ferdinand I.* Bust r.—Shield of arms.

The Parthenopean Republic.—236. AR. Ecu, of 12 Carlini, 1799. REPUBBLICA NAPOLITANA Maiden (Parthenos) with Liberty Pole.—ANNO SETTIMO DELLA LIBERTA in wreath.

The Kingdom of Naples, 1806-1815.—240. AR. Piastra, 1808, of *Joseph Napoleon*. Bust.—Crowned arms.

242. AV. 20 Lire, 1813, *Joachim Murat*. Head l.—Value.

In 1815 Naples and Sicily were again united as the Two Sicilies.

MALTA.

The Knights of St. John of Jerusalem.—The seat of government of this famous Order was transferred from Rhodes to Malta during the rule of Philippe de Villiers (1521–1534).

259. AV. Sequin, 1694, of *Adrien de Wignacourt*. Grand Master kneeling.—Shield of arms.

261. AR. Scudo, 1757, of *Emanuel Pinto*. Shield of arms.—NON SURREXIT MAIOR St. John in wilderness.

THE PAPAL STATES.

The coinage of the Popes began with Gregory III (731–741), but was interrupted from Leo IX (1049) to Urban V (1362), during which period the coinage was under the authority of the Roman Senate. Apart from the splendid portraiture of the Popes and the papal arms, the types present a variety of religious architecture, passages of the Scriptures, moral sayings, etc. Of special interest in the series are the interregal issues of the Cardinal Camerlingo, which bear the inscription SEDE VACANTE, "In vacancy of Holy See." Pius IX (1846–1878) was the last Pope to strike coins.

Roman senate.—142. AV. Florin. Florentine lily—St. John Baptist.

143. AV. Ducat. Types similar to Venetian ducat.

Coins of the Popes.—144. AR. Scudo, 1620, of *Paul V (1605–1621)*. Bust to right; St. George slaying dragon.

146a. AR. Scudo, 1689. *See vacant*. Arms of Cardinal Camerlingo, Altieri—Holy dove.

147. AR. Scudo, 1696, of *Innocent XII*. Bearded bust to right.—The Pope enthroned in Consistory.

147a. Ditto, 1704, of *Clement XI*. Papal arms.—Simeon standing before temple holding the infant Jesus; around, angel, Holy Virgin kneeling, Anna.

148. AV. Scudo, 1712, of *Clement XI (1700–1721)*. Arms—FERRO NOCENTIUS AVRVM (Gold more deadly than the sword).

166. AV. Ducat, 1787, of *Pius VI (1775–1800)*. APOSTOLOR. PRINCEPS St. Peter standing—Lily.

188. Nic. 40 Baiocchi, 1849, of *Republic established after revolution of 1848*. DIO E POPOLO Eagle on fasces—REPUBLICA ROMANA; value.

192ff. Nickel siege tokens of 1849, *when Rome was besieged by French army sent to restore the Pope to authority*. ROMA OBSESSA AB EXERCITV FRANCORVM—Wolf suckling twins.

196. AV. 22-1/2 Scudi, 1858, of *Pius IX (1846–1878)*. Bust to left; Value and date in wreath.

FLORENCE AND TUSCANY.

From A. D. 1189 to 1532 the coinage of Florence was autonomous. This coinage consisted of only the denaro until in the thirteenth century, when the larger silver *grosso* was added; and at about the same time (1252), Florence revived the coinage of gold, a metal which had not been coined in western Europe since the latter part of the eighth century, and struck the *florin* or *fiorentino d'oro*. The financial and commercial importance of Florence in Europe secured general acceptance of the new gold coin; it was imitated at about 80 mints. The system of the *florin*, *grosso*, and *denaro*, was continued by the Medici as hereditary Gonfalonieri of the city.

The first duke of Tuscany, which included Florence, Alessandro de' Medici, introduced a silver coin still larger than the *grosso*, called a *testone*, because it bore a portrait of the duke. This coin is said to have been engraved by Benvenuto Cellini (No. 99). The silver scudo (dollar size) was introduced in the reign of Cosimo I. de' Medici, becoming known as the *francescone* in reign of Francis II (1737-1765).

95. AV. Fiorino, undated. Obv. FLORENTIA Lily. Rev. S. IOHANNES B. The saint standing facing. Several specimens are in the case; they differ from each other only in the armorial bearing of the Gonfalonieri at left of the saint's head.

Grand Duchy of Tuscany.—99. AR. Testone, of Alessandro (1533-1537). Bust left.—Saints Damiano and Cosmo standing. This coin is said to have been engraved by Cellini.

106 and 107. AR. Scudos, of Ferdinand II (1621-1670). Reverse, John the Baptist, rosebush.

115. AV. Fiorino, of Gio. Gaston (1723-1737), last of the Medici house. Lily—St. John.

Tuscany given to Francis of Loraine, 1738.—116. AR. Francescone, 1748, Francis II. The Austrian double-headed eagle, with arms on breast, took the place of the Baptist and other reverse types.

The Kingdom of Etruria, 1801, erected by Napoleon.—127. AR. Francescone, 1803, of Charles Louis, under regency of his mother. Busts of young king and his mother, vis-a-vis—Crowned arms.

Austrian Archdukes restored, 1814.

GENOA, AND LIGURIAN REPUBLIC.

21. AR. Third-Genovino. IANVA Gateway—CVNRADVS REX Cross. Conrad II, King of Germany, granted the coinage right to Genoa, and in gratitude the city long retained his name on its coins.

26. AR. Double Scudo, 1653, of the *doge and governors*, who jointly issued the coins from 1528 to 1797.

Ligurian Republic, established in Genoa by Napoleon, 1796.—36. AV. 96 Lire, 1798. Female representing the Republic, seated left.—Fasces, with Liberty Cap.

Lucca and Piombino.—92. AR. 5 Franchi, 1808, of Felice and Elisa (Bonaparte), the sister of Napoleon; their busts to right.—Value.

MILAN.

[Lower case.]

The numismatic history of Milan is similar to that of Florence and other north Italian communities. In Milan the visconti pursued about the same course the Medici did in Florence; and in turn it too became a German dependency, then French, Austrian, and finally a part of the Italian Kingdom.

47. AR. Teston, of John Galeazzo Maria-Sforza (1476-1481). Bust r.—Bust of Ludovico, uncle of John. It is probable that the artist, Da Vinci, engraved this coin.

48. AR. Scudo, (1708) of Charles VI. No. 50. AR. 30 Soldi, 1796, of Francis II (1792-1796).

NAPOLEON IN NORTHERN ITALY.

(a.) *Transpadane Republic, founded by Napoleon in 1796.* Struck no coins.

(b.) *Cispadane Republic, also founded by Napoleon in 1796.*

36a. AR. Scudo, 1796. *Obv.* POPVLVS ET SENATVS BONON(iae) Arms. *Rev.* Bust of Madonna in clouds, above the city.

(c.) *Cisalpine Republic, composed of union of the two preceding.*

37. AV. 10 Lire, 1797. LIBERTA EGUAGLIANZA Liberty standing.—Value in wreath.

(d.) *Kingdom of Italy. Erected from territory of Cisalpine Republic.*

40. AV. 40 Lire, 1814, of Napoleon, 1805–1814. Head l.—Eagle on ermine mantle.

PARMA, AND PARMA AND PIACENZA.

Scudo, 1628, of Edoardo Farnese; 2 Scudi, gold, 1786, of Ferdinand I, of Spain.

53. AV. 40 Lire, 1815, of Marie Louise, former wife of Napoleon I, for whom the emperor of Austria claimed the duchy in 1814. Bust to left.—Arms.

VENICE.

As in the rest of Europe, so at Venice the small denaro and obole of the Carolingian system were struck, and for about three centuries they bore the name of the emperor of the West. In 1192 Venice struck a better and larger silver coin, the *matapan* or *grosso*, and about the same time assumed independent control over her own coinage. The Venetian grosso shows pronounced Byzantine influence, while the French *gros* had an Arabic model. In 1285 Venice followed the example of Florence and coined the gold *ducat* or *zecchino*, and in 1535 added the gold *scudo* and *mezzo scudo*. The coinage of large silver pieces, dollar size, which started in Europe in the early part of the sixteenth century, first occurred at Venice in the dogate of Nicolo de Ponto (1578–1585). Beginning in 1521 the *osella*, interesting medallie coins, were struck and presented by the doge to nobles of the Republic on Christmas Day. They were struck in gold, silver, and bronze. With the loss of independence (1797) the *zecca* (mint) of Venice ceased operations, to resume for but one or two brief periods thereafter.

REPUBLIC.

59a. AR. Matapan, of Doge Marin Morosini, 1249–52. St. Mark and the doge, standing facing.—Christ standing.

60. AV. Ducat, of Giovanni Soranzo, 1312–1328. Kneeling doge receiving banner from St. Mark.—Christ standing in oval of stars.

68. AR. Ducat della Croce, of Antonio Priuli, 1618–23. Cross.—Shield of arms.

70. AR. Ducaton, of Silvestro Valier, 1694–1700. Obverse similar to No. 60.—Winged lion.

77a. AR. Osella, 1790, of L. Manin. *Obv.* LVDOVICI MANIN PRINCIPIS MUNUS (gift). A (nno). II (year 2).

78. AR. 10 Lire, 1797, during the French Occupation. Liberty standing before trophy of arms.—Value in wreath.

LOMBARDO-VENETIAN KINGDOM.

After the fall of Napoleon northern Italy was given to Francis I of Austria, who formed the Lombardo-Venetian Kingdom. It embraced Venice and Milan. Both revolted in 1848, but were reconquered in the following year. Interesting coinages were issued by the provisional governments. Lombardy was finally ceded to Sardinia in 1859 and Venice in 1866.

79. AR. Austrian Lira, 1824, of Francis I. Bust r.; Austrian double eagle.

90. AV. 30 Lire, 1838, of *Ferdinand I.* Bust.—Eagle.
Revolt of 1848.—90. AV. 20 Lire, of Provisional Government of Milan. ITALIA LIBERA. DIO LO VUOLE Italia standing.—GOVERNO PROVVISORIO, etc. Value in wreath.
 90. AR. 15 Soldi, of Provisional Government of Venice. Winged lion.—Value.

SAVOY, SARDINIA, KINGDOM OF ITALY.

In general the coinages of the various possessions of the house of Savoy follow in the wake of the historical development of the coinages of the neighboring countries. Both Florentine and French influence are observable on the different coins issued by the same ruler.

Savoy.—1. AR. Tallero, 1570, of *Charles Emmanuel (1580-1630)*. Bust right.—Crowned arms.

Sardinia.—3. AR. Scudo, 1757, of *Emmanuel I (III of Savoy) (1730-1773)*. Bust left.—Crowned arms.

Piedmont Republic, formed out of the continental possessions of Sardinia in 1798 and annexed to France in 1802.—39. AR. 5 francs, 1803. Italy and France, standing—LIBERTE EGALITE—ERIDANIA.—Value and date.

Sardinia merged with *Kingdom of Italy* of which Napoleon was king (1805-1814).—6. AV. 20 Lire, 1818, of *Victor Emmanuel*, restored 1814. Bust to left.—Crowned arms.

KINGDOM OF ITALY, 1861.

263. AR. 5 Lire, 1861, of *Victor Emmanuel (1861-1878)*. Head right.—Crowned arms.

272. AV. 100 Lire, 1905, of *Victor Emmanuel III, 1900*. Head left.—Crowned eagle. Rare coin.

PORTUGAL.

[Section 7.]

1. Crozado, gold, of *Sebastian (A. D. 1557-1578)*. Obv. Shield of arms. Rev. Cross of the Order of Christ, whence the name *Crozado*. The cross was first placed on Portuguese coins by Alphonso V to commemorate his connection with the Crusades.

6. Quarter Moeda, gold, 1722, of *John V (A. D. 1706-1750)*. Obv. Shield of arms.

8. Escudo, gold, 1723. Obv. Bust. The portrait of the sovereign was first introduced on Portuguese coins in this year.

19. Half Dobra or "Joe," gold, 1785, of *Maria I and Pedro III (A. D. 1777-1799)*. Busts jugate, to right.

36. 80 Reis, bronze, 1829, of *Maria II (A. D. 1828-1853)*. Cast and issued on the island of Terceira, Azores.

40. Peça, gold, 1834. Another name of the *Half dobra*.

65. Milreis, silver, 1898, of *Don Carlos (1889-1899)*. Struck to commemorate four hundredth anniversary of the discovery of India.

SPAIN.

[Section 7, lower case.]

Since the fall of the Roman Empire in the west Spain has been ruled by Visigoth (411-711), Moors, at Cordova and Granada (714-1492), and by Christians in the rest of the peninsula since 718. The coinage of the Visigoths, as of the Goths elsewhere, was almost solely the gold *trientes*, which at first continued the imperial, then adopted independent, types. The coinage of the Moors consisted of the usual *dirhems* and *dinars*, with inscriptions in Arabic. The kings of Aragon and of Leon and Castile struck coins similar to those current in western Europe, with the addition of denominations corresponding to the Moorish coinage. The coinage of gold was not extensive in the Christian States of Spain until the union of Leon and Castile and Aragon, when an extensive coinage of gold occurred under Ferdinand and Isabella. Owing to her wide conquests the Spanish colonial coinage is exceedingly large and of greatest interest.

1. Dirhem, silver, of *Mohammad I* (852-886), first Moorish king of Granada (1236).

2. Excelente de la Granada, gold, of *Ferdinand and Isabella* (1479-1512). *Obv.* Their busts *vis-à-vis*. *Rev.* Shield of arms and eagle.

3. Medio Excelente de la Granada, of the same.

13. 50 Reales, 1626, of *Philip IV* (1621-1665). Shield of arms. Arms of Leon and Castile.

35. Escudo, gold, 1750, of *Ferdinand VI* (1746-1759). Head r.—Crowned shield of arms.

40. Doubloon (8 Escudos), 1778, of *Charles III* (1759-1788). Bust r.—Crowned arms.

59. 5 Pesetas, silver, 1809, *Siege piece of Tarragone, besieged by the French under Gen. Suchet.*

60. Duro, silver, 1808. *Siege piece of Gerona, besieged by the French under Gen. Duhesme.* FER. VII, GNA-1808/UN DURO.

61. 5 Pesetas, silver, 1810. *Struck during French occupation.* Arms of Barcelona.—Value and palms.

74. Duro, of 30 Sous, 1821. *Necessity piece of Majorca, struck during political disturbances in Spain.* SALUS POPULI Shield of arms; FR°. VII and value.

109. Peseta, silver, 1869, of Provisional Government. *Hispania* reclining left.—Arms of Spain.

110ff. Coins of the *Republic of 1870*; types similar to last.

GERMANY.

[Sections 8 to 11.]

Very many of the denominations of German coins, especially the numerous terms applied to the large silver piece of dollar size, will perhaps be most satisfactorily explained by a brief statement of the more important monetary measures since the beginning of the sixteenth century. Before the modern period the coinage of Germany was virtually the same as that of mediæval France, though in the twelfth and thirteenth centuries the inability of the mints, with their slow hand processes, to supply the amounts of coin required as a result of the Crusades led to the issue of a very thin, base silver piece, with a type on only one side, and which could therefore be produced easily and rapidly. These are generally called "bracteates;" that is, thin plates.

In 1486 a large silver piece appeared in Bohemia and was designated a *guldengroschen*, the *groschen* of a gold *guilder* value. In 1519, at the Joachimsthal mint, another large silver piece was struck of slightly lower standard than the *guldengroschen*, and for the sake of distinction became designated the *Joachimsthalcr* piece. This later coin was adopted and struck by several of the silver-producing countries, the name being

soon abbreviated to *thaler*. This appearance of a large silver coin seems to have disturbed the monetary system of the German Empire and numerous efforts were made by the emperors to regulate the silver coinage and bring it under control of a central authority. These efforts generally proved unavailing because they failed to take into full consideration the local interests of the numerous petty States. In time the various States and groups of States worked out systems suited to their local conditions, and later these diverse systems were brought into a sort of general harmony.

A. D. 1524, Charles V promulgated the first general monetary system designed to regulate the silver coinage. Largest silver piece, *reichsguldener*, value of gold florin, 8 pieces to mark of fine silver. Rejected by the States.

A. D. 1551. Diet of Augsburg. *Reichsgulden*, of 72 kreutzers, $7\frac{1}{2}$ to mark of fine silver; *thaler* to be suppressed, to which Saxony objected.

A. D. 1555. *Thaler* of $2\frac{1}{2}$ *groschen*, or 32 *marcengroschen* established by confederation of Saxony, Brunswick-Lüneburg, Halberstadt, Hildesheim, Hanover, and other States.

A. D. 1559. Diet of Augsburg. *Reichsgulden*, of 60 kreutzer, $9\frac{1}{4}$ to mark; and in 1560 a *reichsthaler* of 68 kreutzers was added to secure adhesion of Saxony. This system was adopted throughout Germany. Increase in the value of silver, however, led to confusion everywhere, and efforts were made to remedy the trouble.

A. D. 1667. Diet of Regensburg. *Reichsthaler*, of 96 kreutzers. Saxony, Brandenburg, and Brunswick-Lüneburg withdrew from that convention and at Zinna established the *zinnaufuss*, or *standard*, with a *thaler* of 90 kreutzers, but only the $\frac{2}{3}$, $\frac{1}{3}$, and $\frac{1}{6}$ *thaler* pieces were to be struck. The $\frac{2}{3}$ *thalers* were equivalent to the older $2\frac{1}{2}$ *marcengroschen* pieces.

A. D. 1690. *Leipzig standard* (Leipzigerfuss). *Currentthaler*, 12 to mark fine silver = 12 *gute groschen*. Only the $\frac{2}{3}$, $\frac{1}{3}$, and $\frac{1}{6}$ *currentthaler* struck. Adopted by all but Luebeck and Hamburg, and became the imperial standard, *reichsmuenzfuss*, in 1738.

A. D. 1753. Convention standard (Conventionsfuss). *Thaler*, 10 to mark of fine silver, established by Bavaria and Austria. Accepted by nearly all the States, but not by Prussia, for which Frederick II had established in 1751 the system with *Frederick d'or* and the *reichsthaler* of 10 $\frac{1}{2}$ to mark of fine silver.

A. D. 1808. Crown *thaler* standard (*Kronenthalerfuss*), in the southern States, and later adopted by the most of the country.

A. D. 1838. Union standard (Vereinsmünze). $3\frac{1}{2}$ *gulden* (= 2 *thalers*) and *thaler*, the former for the southern countries and the latter for the north.

A. D. 1873. Imperial standard, gold *reichsmark*, 900 thousandths fine, or about $\frac{1}{3}$ of old *thaler*. Silver, 5-mark piece 777 thousandths fine.

Throughout most of their modern history the northern German countries have used the *thaler* as a unit of reckoning, whilst the southern countries have used the *guilder*.

[Section 8.]

Nos. 1 to 69 are what numismatists designate *bracteates* (from *bractea*, a thin plate or leaf of metal), very thin plated or washed base-metal coins with a type on but one side. These peculiar coins originated in Germany in the twelfth century. Their origin is not quite clear, but it is thought with reason that they were first made in answer to the increased demand for coined money by the Crusaders; for, being so thin and struck on only one side, they could be manufactured much more rapidly than the thicker and heavier *denarii*, which could be produced by the hand processes of the time only very slowly. The name "bracteate" is a modern and purely descriptive term for these coins; when in circulation they were known as *pfennige* or by some of the numerous forms of that name.

PRINCELY HOUSES AND SUBSEQUENT STATES INTO WHICH THEY WERE ERECTED.

BADEN.

MARGRAVIATE.

112. AR. *Thaler*, 1766, of *Carl Frederick*, 1738-1805. Obv. CAROLUS FRID. D. G. MARCHIO BAD. ET. H.; cuirassed bust to right. Rev. AD NORMAN CONVENTIONIS; crowned arms supported by eagles.

GRAND DUCHY (1806-1870.)

450. AR. Kronenthaler, 1813, of *Carl Ludwig, A. D. 1811-1818*. Obv. GROSSHERZOGTUM BADEN; arms within ermine mantle. Rev. Within laurel wreath, 1/KRONEN/THALER.

452. AV. 10 Gulden, 1819, of *Ludwig Wilhelm, 1813-1830*. Obv. Bust to right. Rev. Within a wreath, arms and 10 G.

459. AR. Kronenthaler, 1831, of *Leopold, 1830-1852*. Obv. Bust to right. Rev. Crowned arms supported by griffins.

464. AR. Gulden, 1863, of *Frederick, 1856-1907*. *Special issue commemorating national rifle-match*. Obv. Head of Duke to right. Rev. I. BAD. LANDESSCHIESSEN MANNHEIM 28 JUNI 1863; female figure standing.

465. AR. Vereinsthaler, 1869. Head to left.—Arms within ermine mantle. (See also under German Empire, Sec. 11.)

BAVARIA.

DUCHY.

114. AV. Ducat, undated, of *Ludwig (1508-1545)*. Obv. LVDWIG. P. R. DVX BAVAR; shield of arms. Rev. Three shields of arms in triangular position.

117. AR. Speciesthaler, 1694, of *Maximilian Emanuel (1679-1726)*. Obv. Draped bust to right. Rev. CLYPEUS OMNIBUS IN TE SPERANTIBUS; Virgin and Holy Child.

118. AV. Doppelducat, 1734, of *Carl Albert (1726-1745)*. Bust to right; similar to No. 117.

123. AR. Thaler, 1778, of *Carl Theodore (1778-1799)*. Obv. Bust to right. Rev. PATRONA BAVARIAE; Virgin and Holy Child.

KINGDOM OF BAVARIA (1806-1870).

410. AR. Thaler, 1818, of *Maximilian Joseph I (1806-1825)*. Obv. Cuirassed bust to right. Rev. MAGNUS AB INTEGRO SÆCULORUM NASCITUR ORDO; a large stone inscribed CHARTA MAGNA BAVARIÆ; exergue, XXVI MAII MDCCCXVIII. Distributed to members of the first Bavarian Parliament, May 26, 1818.

413. AR. Kronenthaler, 1826, of *Ludwig I (1825-1848)*. Obv. LUDWIG KOENIG-VON BAYERN; head to right. Rev. GERECHT UND BEHARRLICH; a crown between laurel and oak branches. Edge, BAYERISCHER KRONTHALER.

During the reign of this king a large variety of commemorative silver thalers were struck to celebrate important events. The obverses are the same on all the specimens, the reverse only having the character of a commemorative medal. The entire series is in the Collection, some are as follows:

417. Ditto, 1838. *The royal family*. Rev. Around, SEGEN DES HIMMELS; in center, medallion of the Queen, and around this eight smaller medallions of her children: (1) MAXIMILIAN P. V. B. (2) MATHILDE—P. V. B. (3) OTTO.—P. V. B. (4) ADELGUNDE—P. V. B. (5) LUIT.—POLD P. V. B. (6) HILDEGARD—P. V. B. (7) ADALBERT—P. V. B. (8) ALEXANDRA—P. V. B. (P. V. B.=Prinz or Prinzessin von Bayern.)

423. Ditto, 1835. *Dedication of monument marking parting of Queen from Prince Otto.* Rev. Representation of the monument.

425. Doppelthaler, 1837. *Monetary Union South German States.* Rev. Female figure standing, holding scales and cornucopia.

427. Ditto, 1842. *Marriage of Crown Prince.* Rev. Busts jugate of Crown Prince Maximilian and Princess Marie of Prussia.

438. Vereinsthaler, 1859, of *Maximilian II (1848-1864)*. Obv. Bust to right. Rev. EIN VEREINSTHALER-XXX EIN PFUND FEIN; arms. (See also under *German Empire*, Section 11.)

Landau. 2 Florins, 8 Kreuzers, silver (1713). *A square siege piece struck during siege of Landau by the French.* In center, round coat of arms of duke of Wurtemberg; above, PRO CAES & IMP; below, BEL; LANDAU/2 FL: 8 KR.; monogram in each angle. Reverse plain.

PFALZ.

[Palatinate.]

217. AR. Thaler, 1660, of *Carl Ludwig, 1650-1680*. Obv. Bust to right. Rev. DOMINVS PROVIDEBIT; shield of arms.

220. AV. Ducat, 1757, of *Carl Theodore (1743-1799)*. Obv. Nude bust to right. Rev. SIC FULGENT LITTORA RHENI; view of the city of Mannheim.

223. Conventhaler, 1766. Obv. Short bust to right. Rev. Crowned arms supported by lion. Karl Theodore became Elector of Bavaria in 1777 and thus united the Palatinate and Bavaria.

BRANDENBURG ANSBACH.

130. AR. Thaler, 1548, of *Albert Alcibiades (1527-1557)*. Obv. ALBERT9 * D. * G. * MARCHIO * BRANDENBV.; his bust r. Rev. SI * DE9 * PRONOBIS * QVIS * CONTRA * NOS; cross with shields in angles.

132. AV. Ducat, 1631, of *Friedrich, Albert, and Christian*. Obv. Three busts facing. Rev. Three shields of arms.

134. AV. Ducat, 1769, of *Alexander (1757-1791)*. Obv. PATRI PATRIAE DEVOTISSIMVS; placing heart on burning altar. Rev. Inscription.

BRANDENBURG BEYREUTH.

126. AR. Thaler, 1735, of *Friedrich (1735-1763)*. Obv. Bust r. Rev. Crowned eagle on shield over trophy of arms.

129. AV. Ducat, 1767, of *Friedrich Christian (1763-1769)*. Obv. Margrave mounted r. Rev. Badge of Order of Red Eagle.

BRAUNSCHWEIG-WOLFENBÜTTEL.

139. AR. Thaler, 1562, of *Heinrich d. Junger (1514-1568)*. Obv. Bust to left. Rev. Wild man with uprooted tree in left, and shield of arms in right, hand.

139. AR. Wespenthaler (*Wasp Thaler*), 1599, of *Heinrich Julius (1589-1613)*. Obv. HEINRICUS. JULIUS. D. G. F. E. H. A. D.

B. ET L. 99.; twelve small shields of arms, each in laurel wreath, placed in form of a rose. *Rev.* A lion sitting to left and stirring up a wasp's nest; ten of the wasps attack the lion, on whom the sun (representing the favor of Heaven) is shining and whom an eagle (the Emperor) crowns. The allegorical type of this piece has reference to the rebellion of ten noble families against the Duke, and their subjugation through aid of the Emperor.

140. AR. Pelikansthaler (or *Patrioenthaler*), 1599, of same. *Obv.* Helmeted shield of arms supported by wild man. *Rev.* PRO-ARIS-ET-FOCIS, with bundle of arrows between the words; pelican tearing open her breast and sprinkling with blood her four fledglings in nest.

148. *New Line of Wolfenbüttel*. AR. IV. Glockenthaler (*Bell Thaler*), 1643, of August (1598-1666). *Obv.* AUGUSTUS.HERZOG. ZU. BRAUNS: UND. LU: half-length bust. *Rev.* ALLES MIT BEDACHT 1643; a bell-clapper leaning on a block of stone, the latter inscribed AP. 13 v. 10 IN -F. (Rev. XIII, 10—"Here is the patience and faith of the saints"); on the clapper, date, 13 K. MAII (April 19). To celebrate the raising of the siege of Wolfenbüttel that had lasted from 1626 to 1643 August had a series of seven coins struck, whose types illustrate the hanging and ringing of a bell. Hence the name of the thaler piece, *Glockenthaler*.

149. AR. VII. Glockenthaler, 1643. *Obv.* Legend as No. 148; shield of arms surmounted by five helmets. *Rev.* TANDEM PATIENTIA VICTRIX ANNO-1643; bell rung by three hands pulling on three cords; on the bell NU: PAC/EX. SO. EI9 (*Nuncius Pacis Ex Sono Eius*—"Tidings of Peace From Its Sound"); below, view of the city and fortress of Wolfenbüttel, and sun above.

146. AR. Thaler, 1671, of *Rudolph Augustus* (1666-1685). *Obv.* D: G: RUDOLPH AUGUSTUS DUX BRUNS: & LU; his bust to left. *Rev.* IURE & ARMIS; open Bible resting upon a drum, which is the central piece of a trophy of military arms; on the Bible I MACCABEORUM, CAP. 15 v. 33, 34. Exergue, 12 RYNY. 1671. A commemorative thaler relating to the conquest of the city of Brunswick.

148. AR. 3 Thaler, 1685, of same. *Obv.* Helmeted shield of arms. *Rev.* TU TANDEM ABIECTAM REDDES DEUS ALME SONORAM; near Lautenthal, Fortuna in long robe stands on a snail shell and plays a lute (the "*Lautenschlägerin*"); above, in Hebrew, "Jehovah"; to left, sun. Triple Ausbeute-Species-Thaler, or silver mining piece, referring to the successful operation of the mines of Lautenthal.

149. AR. Speciesthaler, 1691, of *Rudolph Augustus & Anton Ulrich* (1685-1704). *Obv.* Helmeted shield of arms. *Rev.* Two wild men grasping uprooted trees.

156. AR. Thaler, 1704. *Obv.* DIVA. ELISAB. IVLIA. D. G. DVC. BRVN. ET LVN. Bust of Elizabeth to right; below, NATA 1634. DENATA 1704. *Rev.* The duchess resting upon a cloud that floats above the castle of Salzthalum; above, on streamer, DESERVISSE IVVAT. "Sterbenthaler," a medallion piece commemorating the death of Elizabeth, the wife of Anton Ulrich.

157. AV. Ducat, 1717, of *Ludwig Rudolph (1714-1731)*. Crowned arms.—Wild man.

470. AV. 10 Thaler, 1813, of *Friedrich Wilhelm (1806-1815)*. Crowned arms.—Value.

471. AV. 10 Thaler, 1817, of *Karl II (1815-1830)*, while under the regency of Prince George, later George IV of Great Britain (1815-1823). *Obv.* GEORGIVS D.G.PRINC.REGENS; shield of arms. *Rev.* TVTOR.NOM.CAROLI.DVCIS BRVNS.ET LVN.; value and date.

475. AV. 10 Thaler, 1825, of the same, as reigning Duke, 1823-1830. Crowned arms.—Value.

477. AV. 10 Thaler, 1831, of *Wilhelm (1830-1884)*. Free horse.—Value and date.

481. AR. Doppelvereinsthaler, 1855. Head to right.—Crowned arms within mantle.

New line, Brunswick-Lüneburg.—168. AR. Reichsthaler, 1646, of *Frederick II (1636-1648)*. Bust to right.—Helmeted shield of arms.

169. AV. Ducat, 1661, of *Christian Ludwig (1641-1648-1665)*. Crowned shield of arms.—Free horse in wreath.

171. AR. $\frac{3}{4}$ Thaler, 1676, of *John Frederick (1665-1679)*. Draped bust to left.—Palm tree upon a rock.

175. AV. 5 Thaler, 1758, of *Georg August (George II of England) (1727-1760)*. Shield of arms.—Horse.

180. AR. Thaler, 1766, of *Georg Wilhelm Frederick (George III of England, 1760-1814)*. Crowned shield of arms.—St. Andrew with cross.

KINGDOM OF HANOVER.

483. AV. 10 Thaler, 1814, of preceding as *King of Hanover (1814-1820)*. Free horse.—Value.

488. AV. 10 Thaler, 1829, of *Georg August Frederick (George IV of England, 1820-1830)*. Head to left.—Value and date.

490. AV. 10 Thaler, 1832, of *Wilhelm Heinrich (William IV of England, 1830-1837)*. Head to right; round shield of arms, crowned.

On the death of *William IV*, Hanover was separated from the crown of England, as the crown of the former could not pass to a female (Victoria) of the line.

493. AV. 10 Thaler, 1838, of *Ernst August, 1837-1851*. *Obv.* ERNST AUGUST V. G. G. KOENIG V. HANNOVER; head to right. *Rev.* Crowned shield of arms within chain of Guelphic Order; around, ZEHN - THAL. - 1838.

Hanover was annexed to Prussia in 1866.

HENNEBERG.

On the death of *Georg Ernst (1583)* his line became extinct and the Grafschaft of Henneberg passed to the house of Saxony. For a long time after the annexation the dukes of Saxony had a special coinage struck for Henneberg and Ilmenau.

189. AR. Thaler, 1693. Helmeted arms.—Crowned hen.

HESSE-CASSEL.

Landgraviate.—191. AR. Speciesthaler, 1636, of *Wilhelm V* (1627–1637). Obv. Crowned lion, rampant. Rev. IEHOVA VOLENTE HVMLIS LEVABOR; willow tree struck by blast of wind; above, "Jehovah" in Hebrew, and rays.

193. AV. Pistole, 1771, of *Frederick II* (1760–1785). Obv. Bust to right. Rev. Order star.

Principality of Hesse, 1802.—203. AV. 5 Thaler, 1817, of *Wilhelm I* (the preceding) *Elector* (1802–6, 1813–21). Obv. Bust to right. Rev. Shield of arms; above, 5. THALER.

338. AR. Vereinsthaler, 1858, of *Frederick Wilhelm* (1847–1866). Head to right.—Shield of arms within ermine mantle surmounted by a crown.

Annexed to Prussia in 1866.

HESSE-DARMSTADT.

192. AV. Ducat, 1761, of *Ludwig VIII* (1739–1768). Four pairs of LL's, addorsed, crosswise.—Shield of arms surrounded by seven small escutcheons.

Grand Duchy of Hesse-Darmstadt, 1806.—540. AR. Thaler, 1809, of *Ludwig I* (1806–1830). Obv. LÜDEWIG GROSHERZOG VON HESSEN; his bust to right. Rev. Shield of arms.

541. AR. Kronenthaler, 1825. Bust to right; arms within ermine mantle.

544. AR. Doppelvereinsthaler, 1839, of *Ludwig II* (1830–1848). Obv. Head to right. Rev. 3½ GULDEN 2 THALER; within a wreath, VEREINS / MUNZE / 1839. (See also German Empire, section 11.)

Landgraviate of Hesse-Homburg.—742. AR. Vereinsthaler, 1860, of *Ferdinand* (1848–1866). Head to right.—Shield of arms within ermine mantle, surmounted by crown.

The house of Hesse-Homburg became extinct in 1866 and the territory passed to the Grand Duke of Hesse-Darmstadt.

MANSFELD.

Formed of portions of the electorate of Saxony and the archbishopric of Magdeburg; annexed to Prussian Saxony in 1780. The coins often bear the names of numerous members of the family, including on the same coin not only father and sons, but also cousins.

213. AR. Thaler, 1582, of *Peter Ernst*, *Johann Albert*, *Johann Hoyer*, *Bruno*, and *Hoyer Christoph*. Helmeted shield of arms; St. George slaying the dragon.

214. AR. Thaler, 1597, of *Peter Ernst*, *Bruno*, *Hans Georg*, and *Peter*. Similar to No. 213.

NASSAU.

A principality until 1806 when it was made a duchy; annexed to Prussia in 1866.

560. AR. Thaler, 1813, of *Friedrick Wilhelm*, duke (1806–1816). Bust to right.—Crowned arms.

562. AR. Kronenthaler, 1817, of Wilhelm Georg (1816-1839). *Obv.* arms within ermine mantle, crowned. *Rev.* EIN / KRONEN / THALER in laurel wreath.

563. Ditto, 1818. Bust to right.—Arms in mantle.

570. AR. Vereinsthaler, 1864, of Adolph (1839-1866). *Commemorative of 25th anniversary of reign.* *Obv.* ADOLPH HERZOG ZU NASSAU; laureated bust to left; on truncation, F. KORN. *Rev.* ZUR FEIER 25 JAEHRIGER SEGENSREICHER REGIERUNG; within oak wreath, DEN / 21 AUGUST / 1864.

PRINCIPALITY OF REUSS.

Speciesthaler, and Vereinsthaler.

DUCHY OF SAXONY AND POSSESSIONS.

In 1485 this duchy and the possessions of the Saxon ducal house were divided between the two sons of Frederick II, Ernst and Albert, the former receiving the duchy of Saxony and the electorate, the latter obtaining portions of Misnia and Thuringia.

A. ERNESTINE LINE (1485-1547).

227. AR. Thaler, undated, of Frederick III, George, and John (1486-1526). *Obv.* FRIDERICH:IOHAN:GEORGI: bust of Frederick III to right, wearing cap with flaps (*Klappmütze*). *Rev.* MON. ARGE. DVCVM SAXO. busts of John and George *vis-a-vis*, with flap-caps. A "*Klappmützenthaler*," flap-cap dollar.

228. AR. Thaler, undated, of Johann der Beständige and Georg (1526-32). Bust of John to right.—Bust of George to left.

Saxe Altenberg.—**229. AR. Thaler, 1607, of the Four Brothers (1603-1625).** *Obv.* busts of John Philip and Frederick, *vis-a-vis*. *Rev.* busts of John Wilhelm and Frederick Wilhelm II, *vis-a-vis*.

Saxe Gotha.—**230. AR. Thaler, 1598, of John Casimir and John Ernst (1570-1633).** *Obv.* half-length busts, *vis-a-vis*. *Rev.* shield of arms encircled by thirteen small shields.

Saxe Weimer.—**231. AR. Thaler, 1582, of Frederick Wilhelm and John (1575-1602).** *Obv.* Facing bust of Frederick. *Rev.* Facing bust of John.

232. AV. Ducat, 1614, of The Eight Brothers. *Obv.* MONETA AVREA. 8. FRAT: DVC: SAX: busts of John Ernst, Frederick, Wilhelm, and Albert, facing. *Rev.* IVL. CLIV. ET. MONT. LINEÆ. VINARI. busts of John Frederick, Ernst, Frederick Wilhelm, and Bernhardt, facing.

233. AR. Thaler, 1611. Similar types to No. 232.

In 1547 the Emperor Charles V. deprived John Frederick of the electorate, and the duchy was transferred to Moritz of the Albertine line. In 1556 the Elector August suppressed all the mints within his realms except the one at Dresden.

B. ALBERTINE LINE.

236. AR. Thaler, 1530, of Georg (1500-1539). *Obv.* NAW. MVNTZ. HERZOG. GEORGEN. ZV SAXE.; bust to left. *Rev.* NACH DEM ALTEN SCHROT VND. KORN.; five shield of arms placed in form of a cross.

237. AR. Thaler, 1555, of *August (1553-1586)*. Bust to right. Rev. Helmeted shield of arms.

241. AR. Klippethaler, 1615, of *John George I (1611-1656)*. Half length figure of the duke; in outer angles, CHRISTUS-SCOPVS-VITAE-MEAE. Rev. Arms.

242. AV. Ducat, 1616. "Sophienducat." SC in monogram, crowned, over sword and scepter in saltire. Rev. I. H. S.; eye above.

243. AV. Ducat, 1617. *Luther centennial piece*. VERBVM DNI : MANET. IN. AETERNVM; half length figure of John Georg; in field, IOH.-GEO. Rev. SECVLVM LVTHERANVM half length figure of Frederick III, Luther's protector; in field, FRID.-III.

252. AR. Thaler, 1767, of *Xaver, Prince regent (1763-68)*, for Fredrick Augustus III. XAVIERVS D. G. REG. PR. POL. & LITH : DVX SAX.; bust to right. Rev. Crowned shield of arms.

264. AR. Thaler, 1790. "Vicariatsthaler." FRID. AVG. * * * VICARIVS IMPERII; bust to right. Rev. Double eagle.

265. AR. Thaler, 1806. *Ausbeutethaler*. Cuirassed bust, draped, to right. Rev. DER SEGEN DES BERGBAUES; shield of arms.

KINGDOM OF SAXONY, 1806.

575. AV. 10 Thaler, 1817, of preceding as King *Frederick August I (1806-1827)*. FRID. AVGVST. D. G. REX SAXONIAE bust to right. Rev. Oval shield of arms.

592. AV. 5 Thaler, 1839, of *Frederick August II (1836-1854)*. FRIEDRICH AUGUST V. G. G. KOENIG. V. SACHSEN head to right. Rev. Arms.

604. AR. Doppelthaler, 1858, of *John, 1854-1873*. Head to left. Rev. ZWEI VEREINSTHAELER (note error of "Thaeler" for Thaler). Arms in mantle.

607. AR. Vereinsthaler, 1866. Head to left. Rev. SEGEN DES BERGBAUES. Arms supported by two men. (See also German Empire, section 11.)

PRINCIPALITY OF WALDECK AND PYRMONT.

AR. Kronenthaler, 1824, of *Georg Heinrich*. Value and crown. Rev. A tree.

SCHWARZENBERG.

620. AR. Speciethaler, 1696, of *Ferdinand and Maria Anna*. Busts jugate. Rev. Two shields of arms in mantle.

STOLBERG AND WERNIGERODE.

Gold ducat of *Ludwig (1544-1574)*, and Speciethaler of *Wolfgang George (1612-1631)*.

KINGDOM OF WESTPHALIA.

- 396.** AV. Pistole (10 Thaler), 1810, of *Jerome Napoleon (1807-1815)*.
Obv. HIERONYMOUS NAPOLEON; crowned shield of arms.
Rev. KOENIG VON WESTPHALIEN FR. PR.; value and date.
402. AR. Conventionsthaler, 1812. Bust to right.—Value and date.

DUCHY OF WÜRTTEMBERG.

- 271.** AV. Halbducat, 1732, of *Eberhard Louis (1677-1733)*. Bust to right.—Shield of arms, CUM DEO ET DIE.
273. AR. Thaler, 1760, of *Carl Eugen (1737-1793)*. Draped bust to right; Garnished shield of arms.

KINGDOM OF WÜRTTEMBERG.

- 318.** AR. Kronenthaler, 1810, of *Frederick I, (1805-1816)*. Bust to left.—Shield of arms supported by lion and stag.
621. AV. 5 Gulden, 1825, of *Wilhelm I (1816-1864)*. Bust to right. Shield of arms within oak wreath.
626. AV. Kronenthaler, 1833. *Obv.* Bust to right. *Rev.* HANDELS FREIHEIT DURCH EINTRACHT; female figure standing to left, holding parchment in r., and caduceus in l., hand; in front of her reclines river-god; in field, two cornucopiae.
628. AR. Doppelthaler, 1869, of *Carl I (1864-1891)*. *Commemorating restoration of Ulm Cathedral.* Head to right.—ZUR ERINNERUNG AN D. WIEDERHERSTELLUNG D. MUENSTERS IN ULM; view of the cathedral. (See also *German Empire*, Section 11.)

COINS ISSUED BY CITIES.

The conditions of medieval society in Germany made it necessary for the emperor to grant the right of coining money to vassal princes, archbishops and bishops, and later, when sufficiently developed, also to numerous cities. This right was enjoyed by some of the cities for but a short time; the coinages of others were extensive, and are often of great interest, while a few cities have retained the right to coin money until the present time.

AUGSBURG.

- 276.** AV. Ducat, 1623. *Ferdinand II.* *Obv.* AVGVSTA VINDELIC; arms of city: fir cone. *Rev.* FERDINANDVS: II. ROM. IMP. P. F. AVG.; imperial double eagle.
277. AR. Speciesthaler, 1694. *Leopold I.* Shield of city arms supported by river-gods.—Imperial eagle.

BREMEN.

Imperial coinage.—**275.** Bil. Half Grote, undated. MO. NO. REIP. BREM. Key. *Rev.* SANCT. PETRUS St. Peter seated facing, holding sword and key.

284. AV. Double Ducat, 1667, of *Leopold I.* DUCAT. NOV. AURE. REIPUBL: BREMENSIS arms of Bremen. Rev. LEOPOLD: D. G. ROM. IMP., etc. Emperor standing holding scepter and orb.

Free city of Bremen.—**505.** 36 Grote, 1846. FREIEHANSESTADT BREMEN city arms. Rev. 36/GROTE/1846.

514. AR. Thaler, 1865, commemorating the *II. National Rifle Match*. Crowned arms; below, EIN THALER GOLD. Rev. ZWEITES/DEUTSCHES/BUNDES-/SCHIESSEN/IN BREMEN/1865.

515. AR. Thaler, 1871, commemorating the peace of 1871. Obverse as No. 514. Rev. ZUR ERINNERUNG/AN DEN/GLORREICH/ERKÄMPFTEN/FRIEDEN/VOM 10 MAI/1871.

FRANKFORT ON THE MAIN.

Frankfort was the usual place of electing and crowning the Roman-German emperors, and there is an interesting series of *Election coins* (Wahlmünzen) struck to commemorate the events.

305. AV. Election Ducat of *Matthias*, 1612. MATTHIAS. IN. REGEM. ROMA ELECTUS. A°. 1612. The emperor seated facing, holding sword and orb. Rev. Seated winged figure crowned by an eagle.

307. AV. Election Ducat of *Francis II*, 1792. Laureated bust to right. Rev. Sword, scepter, and crown on altar.

519. AR. Doppelgulden, 1848, commemorating *Meeting of the Constituent Assembly of the Germanic Confederation*. CONSTITUIRENDE VERSAMMLUNG I(n). D(er). F(reien). STADT FRANKFURT 18. MAI 1848. Double eagle. Rev. BERATUNG U. GRÜNDUNG E. DEUTSCHEN PARLAMENTES 31 MÄRZ 1848. Frankfort eagle.

520. AR. Doppelgulden, 1848, commemorating *selection of Archduke Johann as Regent of the Empire*. Obverse similar to No. 519. Rev. In field, ERZHERZOG/JOHANN/VON/OESTERREICH+; around, ERWÄHLT ZUM REICHESVERWESER ÜBER DEUTSCHLAND D. 29 IUNI 1848*.

521. AR. Doppelgulden, 1855. Commemorating *Third Centennial of Religious Freedom*. Obv. Crowned eagle. Rev. ZUR/DRITTEN/SÄKULARFEIER/DES/RELIGIONS/FRIEDENS/VOM 25 SEPT/1555-1855.

HAMBURG.

309. AV. Ducat, 1644. MONETA NO. HAMBVRG Madonna, crowned, and Holy Child. Rev. AVE. PLEN. GRACIA 1644. Similar to obverse.

310. AR. 16 Schillinge, 1726, of *Charles VI.* HAMBURGER. CURRENT GELDT. Arms. Rev. Double eagle.

See also under *German Empire*, section 11.

MAGDEBURG.

330. AV. Ducat, 1679, of *Ferdinand I.* Arms of the city: a maid (*Magde*) upon city wall (*Burg*). *Rev.* Double eagle.

331. AR. Thaler, 1617. *Luther anniversary piece.* Double eagle. *Rev.* Busts, *vis-a-vis*, of Luther and Huss.

NORDLINGEN.

323. AV. Ducat, undated, of *Frederick IV.* St. John standing. *Rev.* Imperial orb within a tressure.

NUREMBERG.

324. AV. Florin, undated, of *Frederick and Sigismund.* St. John, standing, facing. *Rev.* Cross, with shields of arms in angles.

325. AV. Florin, undated. Eagle. *Rev.* St. Lawrence with grill.

332. AV. Ducat, 1700, commemorating beginning of the century. SAECVLVM NOVVM CELEBRAT RESP. NORIBERGENSIS, Three shields. *Rev.* Lamb standing on globe.

The $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, and $\frac{1}{16}$ ducat pieces that follow form a series with the same types as 332.

Imperial coinage of Nuremberg.—**340.** AR. 30 Kreuzer, 1573, of *Maximilian II.* Two shields of arms. *Rev.* Double eagle.

344. AR. Speciesthaler, 1757, of *Francis I.* Arms of the City. *Rev.* Bust of Francis.

REGENSBURG.

349. AV. Ducat, of *Francis I.* SIBI CONSCIA RECTI. View of the city; below, RATISBONA (*Regensburg*). *Rev.* Mailed bust.

STRALSUND.

351. AR. $\frac{2}{3}$ Thaler, 1707. Miter, value and date.—Cross.

STRASSBURG.

352. AV. Ducat, undated. Madonna and Holy Child—AVREVS. VRBIS. ARGENTINAE. NVMMVS; city arms.

353. AR. Thaler. Lily.—Arms.

ULM.

355. AR. Halbthaler, klippe (square), 1704. *Siege piece.* Obr. Garnished shield of arms; *Rev.* DA.PACEM.NOBIS.DOMINE. 1704; double eagle.

ARCHBISHOPS AND BISHOPS.

ARCHBISHOPRIC OF BREMEN.

357. AV. Florin, undated, of *Heinrich I. (1463-1496)*. St. Peter standing.—Shield of arms.

BISHOPRIC OF COBLENTZ.

359. AV. Ducat, undated. St. John seated.—Arms.

ARCHBISHOPRIC OF COLOGNE.

361. AV. Florin, undated, of *Dietrich II (1414-1463)*. St. Peter standing.—Four shields of arms, placed crosswise.

366. AR. Thaler, 1666, of *Maximilian Heinrich (1650-1638)*. Bust to right.—Shield of arms.

ARCHBISHOPRIC OF MAINZ.

369. AV. Ducat, undated, of *John Adam (1601-1604)*. St. Martin.—Shield of arms.

371. AR. Thaler, 1671, of *Johann Philip (1729-1732)*. Bust of the archbishop to right.—Shield of arms. The so-called "*Sortengulden*."

BISHOPRIC OF MÜNSTER.

374. AR. 24 Mariengroschen, 1692, of *Frederick Christian (1688-1706)*. Crowned shield of arms.—Value within a circle.

BISHOPRIC OF OSNABRÜCK.

376. AR. Thaler, 1687, of *Ernst August (1662-1698)*. Bust to right—SOLA BONA QUAE HO-NESTA. ANNO. M. DC. LXXXVII.—Shield surmounted by five helmets.

BISHOPRIC OF PADERBORN.

378. AR. Thaler, 1685, of *Hermann Werner (1683-1704)*. St. Anthony of Padua holding the Holy Child, and about to be crowned by the Madonna.—Shield of arms surmounted by five helmets.

BISHOPRIC OF REGENSBURG.

380. AR. Thaler, 1787, of the Vacant See. REGNANS CAPITVLVM * * * * SEDE VACANTE. MDCCLXXXVII.—St. Peter seated in a small boat; around, fifteen small shields of arms.

ARCHBISHOPRIC OF SALZBURG.

381. AV. Ducat, 1640, of *Paris (1619-1653)*. Shield of arms.—St. Rupert seated. A *Klippe* (square) ducat.

382. AR. Thaler, 1628. *Medallic thaler commemorating the dedication of the cathedral*. Obv. ECCLES(iae). METROP (olitanae). SALISB (urgensis) DEDICATVR, 25 SEPT (embria) A PARIDE. ARCHIE (piscopo); cathedral borne by the patron saints of the diocese above clouds; below, arms. Rev. S. S. RVPERTVS. ET VIRGILIVS. PATRONI. TRANSFERVNTVR. 24 SEPT; a reliquary borne by eight bishops; beneath, two angels.

384. AR. Thaler, 1682, of *Maximilian Gandolphus (1668-1687)*. Commemorates the 1100th anniversary of the founding of the Arch-bishopric. Obv. A MAX:GAND:ex COMIT: etc.; garnished shield of arms surmounted by tasseled hat; at sides stand patron saints. Rev. ANNO M. DC. LXXXII. FUNDATI ARCHIEPISCOPAT9 SALISB: VNDECIMO SÆCULO *; five saints standing facing; below, S. S. MARTIN9 EP: VINCENTI9 M:(artyr) HERMES M:(artyr) CHRYSANTH9 ET DARIA MM: TRANSLATI.

388. AR. Conventionsthaler, 1754, of *Sigismund (1753-1771)*. Madonna and Holy Child appearing in clouds; above, MONSTRA TE ESSE MATREM.—St. Rupert seated to left.

BISHOPRIC OF SPEIER.

392. AV. Ducat, 1770, of *August (1770-1797)*. Arms within an ermine mantel.—Pallas standing between two figures representing Justice and Peace.

ARCHBISHOPRIC OF TREVES (TREIER).

394. AV. Florin, undated, of *Werner (1388-1418)*. St. John standing facing.—Arms.

BISHOPRIC OF WÜRZBURG.

395. AR. Speciethaler, 1693, of *Johann Gotfried (1684-1698)*. Helmeted shield of arms over sword and scepter.—St. Killian.

396. Florin, undated, of *Johann Philip (1719-1724)*. Bust three-quarter facing.—ORE/ET CORDE/S. P. Q. W./SVBM. OFFERT; below, arms in cartouche.

399. Ducat, 1764, of *Adam Frederick (1757-1779)*. Bust to right; oval shield of arms.—FLOREBORE DIVIVO HOC GERMINÉ PACIS; a crowned figure standing toward whom dove of peace flies. Date in chronogram, that is the large capitals in the legend are Roman numerals, the sum of which is 1764.

PRUSSIA.

A.—DUCHY OF BRANDENBURG.

634. AR. 3 Groschen, 1545, of *Albert von Brandenburg (1525–68)*. Head to right.—Inscription.

635. AR. 2/3 Thaler, 1688, of *Frederick Wilhelm (1640–1688)*. Cuirassed bust to right.—Crowned shield of arms

B.—KINGDOM OF PRUSSIA, 1701.

640. AV. Doppel Fredericks d'Or, 1750, of *Frederick II (1740–1736)*. FREDERICVS BORVSSORVM REX; bust to right. Rev. An eagle perched on trophy of military arms. The Prussian gold ducat, while also struck by Frederick I, gets its name *Friedrichsd' Or* from Frederick II.

646. AR. Reichsthaler, 1750. Bust to right.—Eagle perched on a trophy of arms.

670. AR. Thaler, 1832, of *Frederick Wilhelm III (1797–1840)*. Obv. Head to right. Rev. SEGEN DES /MANSFELDER /BERGBAUES. "*Ausbeutethaler*" from silver from Mansfield mines.

674. AR. Doppelvereinsthaler, 3½ Gulden, 1840. Bust to right. Shield of arms within ermine mantle surmounted by a crown.

689. AR. Krönungsthaler, 1861, commemorating the coronation of *Wilhelm I. and Augusta*. Obv. WILHELM KOENIG—AUGUSTA KOENIGIN v. PREUSSEN; their crowned busts, jugate, to right. Rev. SUUM CUIQUE—KROENUNGS—THALER 1861; eagle and crowned W's and A's placed on the lines of a cross with R's in angles.

THE GERMAN EMPIRE, 1871.

[Section 11; upper case.]

The German Imperial Government issues no coins, the right of coinage having been left with the several States.

This right is exercised, however, in conformity with the Imperial monetary law, and all coins issued by the States have on one side the Imperial eagle and the legend DEUTSCHES REICH; the other side bears either the State's coat of arms or the effigy of its sovereign.

Specimens of all or nearly all of the other twenty-five States will be found in section 11, arranged in alphabetical order of the States.

704. AV. 20 Mark, 1872, of *Wilhelm I, 1871–1888*. Obv. WILHELM DEUTSCHER KAISER KOENIG v. PREUSSEN; head to right. Rev. DEUTSCHES—REICH; imperial eagle.

705. AR. 5 Mark, 1874. Similar to preceding.

719. AR. 5 Mark, 1901, of *Wilhelm II, 1888–*. Commemorating the 200th anniversary of the Kingdom of Prussia. Obv. FRIEDERICH I. 1701—WILHELM II. 1901; their busts, conjoined, to left. Rev. As No. 704.

722. AR. 3 Mark, 1908. Head to right.—Eagle.

The German Imperial monetary system established in 1871 provided for 5, 2, and 1 mark silver pieces; also 50 and 20 pfennig pieces in silver, but embraced no piece that was equivalent to the long-used *thaler*. In 1908 a 3-mark piece, about equivalent to the old *thaler*, was added to the series.

AUSTRIAN ARCHDUCHIES.

Archduchy of Austria.—AR. Thaler, 1479, of *Maximilian I.* MAX-IMILIAN9(us). MAGNANIM9(us). ARCHIDVX. AVSTRIE. BVRGVND* Laureated bust to right; in field, ETA-TIS 19 (age 19). Rev. MARIA. KAROLI. FILIA. HERES. BVRGVND. BRAB. CONIVGES* Bust of Mary of Burgundy to right; in field, ETAT-IS 20 (age 20); below, 1479. This medallie thaler, *schauhaler*, is usually reckoned as a coin, though it is evidently more of a medal than a coin. The piece is famous as one of the first coins to have the date in Arabian numerals.

Tyrol.—AR. Guldengroschen, 1486, of *Sigismund (1439-1496)*. SIGISMVNDVS:-ARCHIDVX. AVSTRIE. The archduke, crowned, standing full face, with scepter in left, and sword in right, hand; in field, left, lion supports arms of Austria, right, a helmet. Rev. A knight, full armed, galloping to right; beneath horse, 1486; around, 16 escutcheons. (See Introduction.) This is a specimen of the first known issue of the thaler or dollar, though a thick pattern of small module was struck in 1484, and also a *Halb-thaler*, of which a specimen is shown.

EMPERORS OF THE ROMAN-GERMAN EMPIRE.

70. AR. Reichsgulden, 1559, of *Ferdinand I (1556-1564)*. Crowned bust r. Rev. Double eagle.

71. AR. Guldenthaler, 1570, of *Maximilian II (1564-1576)*. Crowned bust to right. Rev. Double eagle.

73. AR. Reichsthaler, 1611, of *Rudolph II (1576-1612)*. Bust r. Rev. Double eagle.

The two following pieces in honor of the emperors Maximilian I, Charles V, and Ferdinand I, were probably struck by Rudolph II:

74. AV. 5 Ducats, undated. MAXI. I. CARO. V. ET FERD. D. G. ROM. CÆS. REG. HISP. Crowned busts of the three emperors, facing to right. Rev. Double eagle, with arms of Austria on breast.

79. AR. Speciesthaler, 1641, of *Ferdinand III (1637-1658)*. Struck in *Styria*. Laureated bust r. Rev. Round shield of arms.

81. AR. Speciesthaler, of *Leopold I (1658-1705)*. *Tyrol*. Laureated bust r., with mask on shoulder. Rev. Tyrolean eagle.

85. AR. Conventionsthaler, 1786, of *Charles VI (1711-1740)*. Shield of supported by griffins. Rev. AD NORMAM CONVENT. 1766.

90. AR. Thaler, 1780, of *Maria Theresia (1740-1780)*. Bust of the empress wearing mourning veil, to right; the double imperial eagle. This *Thaler*, bearing the date of 1780, is known as the *Levantine Thaler*, because it is accepted throughout much of the Orient. It is still struck by Austria for export to Abyssinia, Ashantee, and to China, and always with the date of first issue, namely, 1780.

94. AR. Thaler, 1763, of *Francis I (1745-1765)*. *Medallie piece commemorating end of Seven Years' War*. Double eagle. Rev.

BENEDICTUS DOMINUS QUI DEDIT PACEM IN FINIBUS NOSTRIS; female, crowned, with olive branch in left hand, and with right placing sacrifice on altar.

AUSTRIA-HUNGARY.

[Section 11; lower case.]

In 1806 Francis II renounced the title of *Emperor of Germany* for that of *Francis I, Emperor of Austria*, a title he had actually taken as early as August, 1804. Thus ended the titular existence of the *Holy Roman Empire* and began that of the present *Empire of Austria-Hungary*.

During the short life of the present empire coins have been struck on three different systems. Until 1857 the gold ducats and silver thalers were issued on the standard established in agreement with Bavaria in 1753; in 1857 Austria joined the German Monetary Union and struck the *vereinsthaler* and *doppelvereinsthaler* in silver and the gold *krone* for circulation in all the countries adhering to the union; and for circulation in Austria only, *florins* in silver and *ducats* in gold with various multiples of the *kreutzer* in billon and copper. At the same time Austria reserved for herself the right to strike the *Levantine thaler*, the thaler bearing the date 1780 and also the bust of the empress Maria Theresa, a coin that circulates freely in several oriental countries. In 1892 a new system with the gold *krone* as unit was adopted and the coins issued are the gold 20, and 10 *kronen*, silver *krone*, and *kreutzer* pieces in nickel and copper. The *Levantine thaler* is still issued.

1. AV. 4 Ducats, 1830, of *Francis I (1806-1835)*. Laureated bust to right.—Double eagle.

29. AR. Vereinsthaler, 1857, of *Francis Joseph I (1848-)*. Laureated head to right.—Double eagle.

37. AR. 2 Gulden, 1879, commemorating 25th anniversary of marriage of the emperor and Elizabeth, of Bavaria. Obv. FRANC. IOS. I. D. G. AVSTR. IMP. ET. HVNG. REX. AP.* ELISABETHA. IMP. REG.; their busts conjoined, to right. Rev. QVINTVM MATRIMONII. LVSTRVM. CELEBRANT. XXIV. APRILIS. MDCCCLXXIX; a female figure seated to left, holding a helm in right, and a cornucopia in left hand.

38. AV. 20 Kronen, 1892. Laureated head.—Double eagle.

51. AV. 100 Kronen, 1908, commemorating the 60th anniversary of the emperor's reign. Obv. Nude bust to right. Rev. A female figure reclining on clouds, her left arm resting on arms of Austria, her right extending a wreath; above, 1848-1908-100 COR(onae); below, DVODECIM LVSTRIS/GLORIOSE PERACTIS.

54. 5 Kronen, 1908, commemorative of same event. Obv. Same as No. 51. Rev. Dancing girl with laurel branch in right hand.

PRINCIPALITY OF LICHTENSTEIN.

56. 5 Kronen, 1904, of *John II*. Bust to right.—Crowned shield of arms in wreath.

BOHEMIA.

1. AR. Grossus, undated, of *John I (1309-1346)*. A crown—GROSSI PRAGENSES; a lion. Bohemia was the first country to follow the reform of coinage begun by France. In 1300 king Wenzel II summoned engravers from Italy and had the grossus (*Ger. Groschen*) engraved after the model of the *gros tournois*.

2. AR. $\frac{1}{2}$ Thaler, 1619, of the *Revolted Protestant States*. Obv. MONETA REGNI BOHEMIAE; a crown. Rev. IN DEO FORTI-

TUDO; a lion. Struck by the protestant States whose revolt precipitated *The Thirty Years' War* (1618-1648).

3. AR. Thaler, 1519, of the *Counts of Schlick*. LVDOVICVS; PRIMO^oD^oGRACIA^oR^o(ex) BO^o(hemiae); the Bohemian lion. Rev. AR^o(ma)DOMI^o(norum) SLI^o(ckorum) STE^o(fani) ET FRA^o(trum) CO^o(mitum) D^o(e) B^o(assano); St. Joachim standing to left. Struck at Joachimsthal, and, because somewhat lighter than the *guldengroschen* (the first "dollar") issued in Tyrol, it and the numerous issues of other princes on the same standard were called *Joachimsthaler*; this was soon shortened to *thaler* whence dollar, daler, dollaro, etc.

HUNGARY.

TRANSYLVANIA.

This country was a Hungarian principality from 1004 till 1526, when it became independent. In 1699 T. was by treaty made a part of the German Empire. It is now an Austrian province.

Thalers and *ducats* of Sigismund Bathori (1581-1596), Gabriel Bethlen (1613-1629), George Rakoczy (1649-1658), and of Michael I (1662-1668).

KINGDOM OF HUNGARY.

The monetary history of Hungary begins with Stephen, who founded the monarchy, embraced Christianity and received from the Vatican the title of *Apollitic King*, a title still held by the king of Hungary (Emperor of Austria).

1. AR. Denier, of *Stephen I* (997-1038). A cross—CIVITAS REGIA(i. e. Gran); a cross.

3. AE. This copper piece of Bela IV (1235-1260), is of similar size and style to Byzantine coins which had become common in Hungary following the Mongol invasion of 1241-42. Obv. REX BELA—REX STS.; Bela and his son Stephen seated facing. Rev. The Madonna seated facing.

6. AV. Ducat, undated, of *Matthias Corvinus* (1458-90). Madonna and Holy Child.—St. Ladislav.

10. AV. Ducat, 1549, of *Ferdinand* (1540-1563), the first king from the house of Austria. Virgin and Child.—St. Ladislav.

22. AR. Halbthaler, 1704, of the "*Malcontents*" who revolted following treaty of Carlowitz, 1699. Obv. MO. NOV. ARG.—REG(ni): HVNG(ariae); garnished shield of arms, crowned. Rev. Madonna and Holy Child, with crowns and aureoles, in clouds; around, PATRONA—HVNG:1704.

23. AV. Ducat, 1724, of *Charles VI* (1712-40). The emperor standing to right.—Madonna and Child in clouds.

41. AV. 10 Francs, 1870, of *Francis Joseph* (1848-). Head to right.—Crowned shield of arms.

59. AV. 100 Kronen, 1907, commemorating 40th anniversary of coronation of *Francis Joseph* as King of Hungary. Laureated head to right. Rev. "*Fortieth Anniversary of Coronation*"; coronation scene. Engraved by Rudolf F. Marschall, of Vienna.

60. AR. 5 Kronen, 1907. Similar to No. 59.

Zara, Dalmatia. Obsidional 4 Francs 60 Centimes, 1813. *Besieged by the French*. Obv. In lozenge-shape cartouche, a crowned eagle standing on thunder-bolt; at sides of eagle, ZARA-1813. Rev. 1. O. / 4 F. 60 C.

SCANDINAVIAN COUNTRIES.

DENMARK.

[Section 12.]

The earliest coinages of Denmark were issued by the Anglo-Danish kings and show a distinctly English influence. The coins are also interesting because of their ecclesiastical character, the church having shared monetary rights with the sovereign. Of the later coins those of the civil wars of the thirteenth and fourteenth centuries are second only to the historical pieces that mark the confusion of the state in the fifteenth, sixteenth, and seventeenth centuries.

130. A.V. Ducat, 1645, of *Christian IV (1588-1648)*. King crowned. *Rev.* IUSTUS IUDEX. The "Just Judge" type.

131. A.R. Double Daler, 1645, of same. Bust to right. *Rev.* Fourteen escutcheons.

133. A.R. Klippe (square) piece, 1648, of *Frederick III (1648-1670)*. Laureated bust. *Rev.* Vase of flowers.

135. A.R. Daler, or 4 Mark, 1659, of same. *Struck to commemorate the repulse of the Swedes from Copenhagen.* Monogram F3, crowned; beneath, a memorial cairn which divides the word EBEN-EZER. *Rev.* SOLI DEO-GLORIA ("The glory to God only"). Hand thrust from clouds with sword severs from arm a hand that reaches for a crown; beneath the crown, ii Feb.

150. A.V. Christian d'or, 1773, of *Christian VII (1766-1808)*. Bust: Royal monograms, crowned.

159. A.V. Double Friedrichs d'or, 1827, of *Frederick VI (1808-39)*. Head 1. *Rev.* Value and date.

160. Ditto. Reverse, crowned arms.

181. A.R. Sterbedaler, 1848, of *Frederick VII (1848-63)*, relating to death of his father, *Christian VIII*. Bust of Frederick VII. *Rev.* Bust of Christian VIII r.; DOD DEN 20 JANUAR 1848: "Died January 20, 1848."

201. A.R. Double Riksdaler, 1863. *Christian IX*, relating to death of *Frederick VII*. Head of Christian IX r. *Rev.* FREDERIK VII, etc. DOD DEN 15 NOVEMBER 1863. Head r.

204. A.R. 2 Kroner, 1903. *Commemorating 40th anniversary of reign.* Bust r. *Rev.* Female figure seated 1.

Schleswig-Holstein.—222. A.R. Speciesdaler, 1788, of *Christian VII (1766-1808)*. Bust r. *Rev.* Crowned arms.

NORWAY.

Coinage in Norway began much later than in other north European countries. Norway and Northumbria in England long had a common coinage. For most of her later history Norway was a dependent of Denmark or Sweden and coins struck for her were indicated by the crossed hammers or other similar means. Her independence under Hakon VII, 1905, is marked by a silver 2-Kroner piece (No. 124).

SWEDEN.

The early coinage of Sweden was often interrupted for considerable periods of time and not until comparatively late times did it become abundant. For a while Sweden issued the thin "pennies" known as "bracteates" and in large numbers. In the reign of Gustavus Vasa, 1523-1560, the first really artistic coins were struck by Sweden, and from that time the artistic character of the series has been unsurpassed. Financial stress has had much to do with the history of this coinage, as is shown below under Nos. 18 and 33. The first Swedish gold was struck by Gustavus Adolphus II, or in the year of his death, 1632.

Section 12.

1. Salvatorthaler, silver, 1545, of *Gustavus I, Vasa* (A. D. 1523-1560), the deliverer of Norway from Sweden. *Obv.* Crowned bust. *Rev.* Christ standing facing; SALVATOR MUNDI, etc., "Savior of the world, help us."

3. Ducat, gold, 1623, of *Gustavus Adolphus II, the Great* (A. D. 1611-1632). Bust to right.—Crowned shield of arms.

7. Salvatorthaler, silver, 1642, of *Christina* (A. D. 1633-1654). Bust to left; similar to No. 1.

15. Ducat, gold, 1714, of *Charles XII* (A. D. 1697-1720). Bust of king to right. *Rev.* Royal monogram.

18-25. Daler tokens, copper, 1715, 1716, 1717, and 1718. These *Necessity coins*, in copper and of very slight value, were issued for the silver *Daler* during the years 1715-1719. The defeat of Charles XII by Peter the Great of Russia in the battle of Pultava in 1709 had completed the financial ruin of Sweden; and the minister, Georg Heinrich von Schlitz, the Baron Goertz, undertook to restore the country by means of the still more ruinous resort to this token money. The types of the pieces are, on obverse, a crown, figures of Hope, Mars, Mercury, Saturn, Phoebus, and finally one bearing the effigy of Goertz, for which audacity one sometimes reads that he suffered the death penalty. But it is rather true that this "Don Quixote of the North" met his fate for the financial disasters which his foolish policy heaped upon Sweden.

33-36. "Plate Money." These large pieces were first issued in the reign of Christina (1633-1654) and continued until Gustavus III (1771-92). They are stamped with the indication of the intrinsic value of the metal. The purpose was to utilize with greatest profit possible the large output of the copper mines.

The "Daler" of these pieces is the Royal Bank Daler, not the Species Daler.

41. Riksdaler Species, silver, 1797, of *Gustavus IV* (A. D. 1792-1809).

42. 4 Ducats, gold, 1848, of *Charles XIV* (A. D. 1818-1844).

THE NETHERLANDS.

Belgium.—Like its political history, the history of the coinages of this small portion of Europe is exceedingly varied. The coinages of the southern portion begin with the feudal issues of Brabant, Luxemburg, Flanders, and many other smaller counties, duchies, and fiefs, partly included in the Belgium of to-day, followed by the issues, usually from local mints, of the foreign conquerors, Austrians and Spaniards from the beginning of the fifteenth to the end of the eighteenth centuries, and of the *Kingdom of Holland*, 1806-1810, at the time of the French Revolution; and, finally, in 1831 came the separation from the Netherlands and the coinage of the *Kingdom of Belgium*.

Holland.—The coinages of the northern provinces may be divided into a small number of historical periods, though each period comprehends many series of coins of which some are of great interest and importance. The chief periods are: First, the feudal coinages of the several counties and towns; second, the confederate coinages of the *United Provinces* (1579-1796); third, the federal coinage of the *Batavian Republic* (1796-1806); fourth, the coinage of the *Kingdom of Holland* (1806-1810); and fifth, the coinage of the *Kingdom of the Netherlands*, since 1814.

(A) *Brabant.*—1. AR. Philippusdaalder, 1557, of *Philip II, of Spain*. Bust r. *Rev.* Crowned shield of arms over cross.

2. AR. Double Ducaton, 1619, of *Albert and Isabella (1598-1621)*. Busts, accolated, to right. *Rev.* Arms.

5. AR. Quadruple Daalder, 1625, of *Philip IV (1621-1665)*. Cross of Boulogne, crown and date. *Rev.* Crowned arms.

(B) *United Belgian States (1789-1900)*.—20. AR. Lion d'argent, 1790. Lion. *Rev.* Arms of the 11 provinces.

(C) *Kingdom of Belgium, 1831*.—1. AV. 40 Francs, 1835, of *Leopold I, A. D. 1831-1865*. Bust with wreath of oak. *Rev.* 40 / FRANCS / 1835.

HOLLAND.

20. AR. 40 Stuiver, 1578. *Siege piece of Amsterdam*, when blockaded by the United Provinces.

(A) *The United Provinces (1579-1795)*.—22. AR. Leeuwendaalder (*Leon Dollar*), 1585, of *Holland*. Helmeted warrior. *Rev.* Lion rampant.

31. AR. Riksdalder, 1696, of *Zeeland*. Warrior standing r. by crowned shield. *Rev.* CONCORDIA RES PARVAE CRESCUNT. Crowned shield of arms; three rosettes above.

44. AV. Rijder, 1763, of *Utrecht*. Horsemen. *Rev.* Crowned arms.

46. AR. 3 Gulden, 1682. Liberty standing and grasping Liberty Pole in her r. hand, HANC TVEMVR (This we guard), and leaning with left upon the Bible, HAC NITIMVR (On this we rely), the legend running round margin. *Rev.* Crowned arms.

60. AR. 12½ Stuiver, 1672. *Square siege piece of Gronigen*. IVRE ET TEMPORE. Crowned arms. *Rev.* Plain.

62. AR. Daalder, 1672. *Broad commemorative piece relating to siege of Gronigen*. SIT SVMMA GLORIA etc. and inscription in field. *Rev.* View of beleaguered city.

63. Daalder, 1672. Similar. *Rev.* Storming of Coeverden.

(B) *Batavian Republic (1795-1806)*.—65. AR. Rijksdaalder, 1802. Struck at *Utrecht*. Warrior standing. *Rev.* Crowned arms. This commonwealth continued the types used by the United Provinces.

(C) *Kingdom of Holland (1806-1810)*.—66. AV. Ducat, 1809, of *Louis Napoleon*. Bust to left. *Rev.* Crowned arms.

From 1810 to 1814 the Netherlands were annexed to France.

(D) *Kingdom of the Netherlands, since 1814*.—67. AV. 10 Gulden, 1837, of *William I (1814-1840)*. Bust l. *Rev.* Crowned arms.

117. AR. Gulden, 1892, of *Wilhelmina, 1889*. Bust of Queen as a child, to left. *Rev.* Shield of arms.

121. AR. 2½ Gulden, 1898, of same. Mature bust of queen.

SWITZERLAND.

[Section 14.]

The earliest independent coinage of what is now Switzerland was struck by the several cantons. In 1798 the cantons formed the *Helvetic Republic* under the protection of Napoleon. The cantonal coinages ceased during the short life of this republic, 1798-1803, and the central government issued the currency. In 1803 the 19 cantons destroyed the republic and resumed their local coinages, bound together under a confederate constitution. In 1848 the cantons again formed a federal republic, and reestablished a federal coinage on the decimal principle. In 1865 Switzerland joined the Latin Monetary Union.

10. AR. Thaler, 1494, of *Berne*, St. Vincent—Bear and eagle beneath arch.

24. AR. Doppelthaler, 1741, of *Basle*. View of the City. Rev. Basilisk holding shield.

48. AE. 6 Sols, 1590, of *Geneva*. Arms of Geneva on sun. Rev. POVR LES SOLDATS DE GENEVE 1590. Necessity coinage of Geneva during war with Savoy; afterwards the copper pieces were redeemed with good coin.

50 and following, coins of *Helvetic Republic* (1798–1803).

53 and following, coins of the Confederate cantons (1803–48).

77. AV. 20 Francs, 1900, of *Confederate republic*, 1848. Bust of Helvetia I, with Alps in background. Rev. Shield of arms. A beautiful coin by Landry.

96 and following, 5-Franc pieces struck to commemorate the national rifle matches.

THE BALKAN STATES.

The early coinages of these states ceased with their conquest in the 10th and 11th centuries; the modern coinages of Bulgaria, Greece, Montenegro, Roumania, and Servia are of recent origin and of small interest. The coinage systems are based upon that of the Latin Monetary Union.

RUSSIA.

[Section 15.]

For centuries after the other countries of Europe had provided themselves with a coinage sufficient for their needs Russia coined no money of her own, and the business of the country was carried on largely by the primitive means of barter, the exchange of one commodity for another, and by means of the most primitive forms of money, chief of which were the skins of various animals.

The skins of the marten, the ermine, and especially of the squirrel were for several centuries a common form of money in Russia. A writer of the latter part of the twelfth century states that "Squirrel skins are the current money of the Russians." For purposes of currency the skins had to have the feet and claws of the animal still attached. A little later, or perhaps contemporary, strips of stamped leather came into use as money. The use of small skins and stamped bits of leather for money remained in Russia until the year 1700, when the ukase of Peter I (the Great) prohibited the circulation of leather money. The oval form of the earlier metallic money, such as the *denga* of Ivan III, Vasilievitch, in the case, probably recalls the skin money that preceded.

The sweeping character of the reform of the coinage made by Peter the Great will be readily seen by comparing the splendid coins of that monarch with the miserable and insignificant coins of his predecessors.

1. *Denga*, silver, of *Ivan III*, Vasilievitch (1462–1505). Legend on both sides.

2. *Denga*, of the same. Grand duke mounted.—Legend.

4. *Denga*, of the same. St. George and dragon.—Legend.

15. Polpoltinniki, or quarter-rouble, silver, 1655, of *Alexis Michaelovitch* (1645–1676). A necessity piece produced by countermarking a portion of a foreign coin. When his treasury had been exhausted by the heavy drain of the war with Sweden and Poland this Czar resorted to the use of foreign coins to supply his needs. Thus *thalers*, half and quarter *thalers*, produced by cutting the *thaler*, were countermarked and put into circulation.

16. Rouble, silver, 1721, of *Peter I*, the Great (1689–1725). Bust.—Double eagle. This was one of the earliest issues of larger silver coins in Russia, though patterns of a *rouble* had been made at Moscow

as early as 1707. Yet the *Denga*, the small oval silver coin of preceding czars, continued to be issued down to 1704.

17. Double-rouble, 1722, of the same. Bust to left.—Four II's, (letter P) in form of cross with numeral I in angles.

21. Kopeika, copper, 1718, of the same. The copper kopeika, or kopek, was first coined in 1711.

30. Double-rouble, gold, 1756, of *Elizabeth (1741-1761)*.

35. Imperial (10 roubles), gold, 1778, of Catherine II (1762-1796).

PLATINUM COINS.

From 1828 to 1845 Russia coined platinum in the denominations of *imperial* (12 roubles), *half-imperial* (6 roubles), and *quarter-imperial* (2 roubles). The wide fluctuations in the value of the metal made it impossible to continue the coinage in the metal. At the present time platinum is worth about twice as much as gold.

66-69. 12, 6, and 3 rouble pieces, platinum, 1832, 1831, respectively, of Nicolas I, 1825-1855.

111. Coronation Rouble, silver, 1883, of *Alexander III (1883-1894)*. Beneath bust, "*Crowned at Moscow/1883.*"

Russian East Prussia.—145. Tympf, silver, 1761, of *Elizabeth*. Bust to right. Rev. Crowned eagle, displayed; below, 6 EIN R(eichs) TH(aler) COUR(ant).

Siberia.—146. 10, 5, 2, and 1 Kopek pieces. Crowned monogram.—Shield supported by sables.

For Russian Poland and Finland see upper case, toward bottom.

FINLAND.

Prior to the conquest of the country by Sweden in the middle of the twelfth century the currency of Finland was evidently composed largely of skins; the coins of Sweden, sometimes struck at Åbo, the ancient capital of Finland, were current in the country until it was taken by Russia in 1809. It is now a grand duchy of Russia, the Czar being the grand duke. A law of the Finnish parliament of August 9, 1877, established a monetary system that is very nearly the same as that of the Latin Monetary Union.

The unit is a markkaa, a coin that corresponds closely to the franc.

1. 20-Markkaa, 1878, of *Alexander II (1855-1881)*. Russian arms.—Value and date.

2-3. 2 and 1 Markkaa, silver, 1865. Eagle.—Value and date.

POLAND.

The early form of money or circulating medium in Poland consisted of the skins of certain animals, as in Russia; but in Poland it seems probable that instead of the entire skins only the scalps were employed for monetary purposes, a purely token money, as the scalps could have no such intrinsic value as might attach to the whole skin in a land where fur is extensively used. Metal coins, chiefly silver, date from the beginning of the tenth century. These were the small Esterlings or Denars; and such was the coinage of Poland until the beginning of the sixteenth century, when, under the prosperous reign of Sigismund I, 1506-1548, an improvement of the coinage was made—nearly two centuries after similar progress had started in western Europe. Hebrew and Arabic legends are often found on the early coins of Poland, a fact due to the large influence of those two races in the country at that time.

Since the partition of the country in 1772 and 1793 the coinage, if any, for the various parts belong with the countries that seized Poland.

1. Denar, silver, of *Boleslas IV (1146-73)*. The duke seated facing on a throne. Rev. Male figure standing l.

4. Ternar, silver, of *Ladislav III* (1434-44). Patriarchal cross.—Eagle.

13. Denar, silver, 1508, of *Sigismund I* (1506-1548). Crown.—Eagle. In the preceding year, 1507, Polish coins were first dated; and soon thereafter statements of value were added.

Elected monarchs.—18. Thaler, silver, 1629, of *Sigismund III* (1587-1632). Crowned bust.—Crowned shield of arms.

39. Thaler, silver, 1649, of *John Casimir* (1648-1668). Half-length figure of the King, to right.—Crowned shield of arms. A rather rare piece.

48. Election-Ducat, 1697, of *Augustus II* (1697-1709-1733); elector of Saxony. *Obv.* The King mounted. *Rev.* Date of election to crown of Poland.

49. Coronation-jeton, 1733, of *August III* (1733-1763), also Elector of Saxony. *Obv.* A crown. *Rev.* Legend, giving date of coronation, etc.

57. Ducat, 1785, of *Stanislas II, Augustus* (1764-1795), resigned; the last monarch of independent Poland. *Obv.* Bust to right. *Rev.* Legend in wreath.

Grand Duchy of Warsaw (1807-1815).—69. $\frac{1}{2}$ thaler, silver, 1814, of *Frederick Augustus* (1807-1815). King of Saxony, made grand duke of Warsaw by Napoleon. *Obv.* Bust to right. *Rev.* Crowned arms.

The Kingdom of Poland, erected out of Grand Duchy of Warsaw by Russia.—154. 5-Zlote, 1829, of *Alexander I* (1815-1825). Bust to right.—Double eagle.

150. 5-Zlote, 1829, of *Nicolas I* (1825-1855). *Obv.* "Alexander I, Emperor of Russia, restorer of the Kingdom of Poland in 1815." Bust right. *Rev.* "Nicolas I, Emperor of all the Russias, Reigning King of Poland." Russian eagle.

Republic (1830-1831).—153. 5-Zlote, silver, 1831. *Obv.* Crowned arms of Poland and Lithuania. *Rev.* Value in oak wreath.

Poland as a Russian Province.—157. 3-Rubles, 20 Zlote, gold, 1838. Russian arms.—Value.

158. $1\frac{1}{2}$ Rubles, 10 Zlote, silver, 1833. Types similar to last.

AFRICA.

INDEPENDENT STATES.

[Section 16.]

Empire of Ethiopia, or Abyssinia.—The *Levant Thaler*, 1780, of Austria, English rupees, and *ingots of salt* formed the currency until 1893, when a new coinage with dollar as unit was introduced, though the former moneys are still current. Types: Bust of King with tiara; Crowned lion holding banner.

Liberia.—1. AR. Quarter-dollar. Types similar to those of United States silver of same date: Seated Liberty, and eagle.

Morocco.—1. Methkal, of *El Gharb*. Arabic inscriptions.

Zanzibar, Sultanate of.—AR. Dollar, 1883. Native inscriptions.

South African Republic.—The Transvaal employed the English monetary system. 1. AV. Pond, 1892. Bust of President Krueger 1.—Arms of the Republic, the ox-wagon with thills.

3. AR. 5 Shillings, 1892. Same types as last.

4. Ditto, but the ox-wagon has pole. The engraver's blunder of putting thills instead of a pole to the ox-wagon which formed a part of the national arms nearly led to a revolt against the administration.

Orange Free State.—Bronze Penny, 1883.

Congo Free State.—1. AR. 5 Francs, 1887, of the *sovereign Leopold II.* Head 1.—Belgian arms.

EUROPEAN COLONIES.

The more or less extensive colonies of England, France, Germany, and Portugal use money based generally upon the currency of the controlling country. Some of the denominations are native and several bear native types. Of special interest are the *5 Franc piece*, 1891, of the *Grande-Comoro*, with the sacred arms on obverse, and the *prowling lion* on coins of *Sierra Leone*.

Native money.—*Iron ring money*; *gold shell*, stated to have come from Africa; and *Ike*, *four short lances* of bronze, bound together with leathern thongs.

Section 17.—Miscellaneous collection of minerals, gold and silver nuggets and ore, a *touch-stone*, and of gold and silver *treasure-ornaments* gold and silver treasured in the form of armlets and anklets.

NORTH AMERICA.

UNITED STATES.

Including the Colonial and Revolutionary Periods.

Prior to the American Revolutionary War and for some years thereafter the currency of this country was of a very heterogenous character; for it was made up largely of English and Portuguese-Brazilian gold coins, Spanish-American silver, chiefly from the mint at the City of Mexico, and of copper coins of which a large proportion were provided by speculators acting with or without authority of the Crown. At an earlier period the Indian *wampum* had been a legalized currency in some of the colonies, and also bullets, beaver skins, tobacco, and other commodities; and in 1652 Massachusetts had also established a mint to strike silver, but after an existence of about thirty years this was suppressed by England. During the period of the Confederation, from the treaty of peace in 1783 to the adoption of the national Constitution in 1789, some of the States attempted to provide a much-needed supply of copper coins for their citizens; but their efforts, which were somewhat successful, came to an end with the establishment of a Federal mint and coinage.

When in 1782 the Congress first took up the problem of establishing a national coinage the English system of *pounds, shillings, and pence*, was nominally in use in the various States, but the actual currency, apart from foreign coins, was paper, and in hardly two of the States did the *pound* have the same value. After considering a rather elaborate system for the proposed coinage, with a *unit* that would be easily convertible into current unit of the various States, a system proposed by Morris, the distinguished financier of the Revolution; and after rejecting it because *unit* would have been a *money of account* of exceedingly small value (1/1440 of a Spanish dollar), Mr. Jefferson proposed that the *unit* be a dollar equivalent in value to the Spanish "milled dollar," then generally in circulation in all the States. This proposition was accepted, and at the same time the decimal system was adopted for the new coinage and the dollar divided into ten *dimes* of ten *cents* each.

A coinage of gold was also provided for with the denomination of *eagle*, and its *half*, and *quarter*, of the value of ten, five, and two-and-a-half dollars respectively. The term "*eagle*" is derived from the reverse type of the piece, which the law prescribed should be an eagle. On the first coinage of gold that bird is represented naturalistically, as it is in the latest designs.

PRIVATE GOLD COINS.

[Section 24, left end of tray.]

These gold coins were struck by private enterprise, first in Georgia and North Carolina about 1830, then later at various places in the Far West following the discovery of gold in California and other Western States. In the latter region the private "coinage" was simply a convenience, a sort of *necessity coinage*. At first large payments were met in the mining regions by the use of gold in nugget or dust form, the latter put up in phials, weighed and marked with the value of the contents, a very inconvenient form of circulating medium. When the mechanical appliances could be secured the gold was converted into a coin form for greater convenience, and not chiefly for profit, if for the latter purpose at all. These communities had an abundance of Mexican silver coins, so that there was no need to coin gold *dollars, half* and *quarter dollars*, and the coins of these denominations were evidently made for the profits that could be realized by their sale to tourists. They continued to be coined long after the issue of other denominations had ceased.

PRIVATE COINERS AND SPECIMENS OF THEIR COINS.

Georgia: *Templeton Reid*. 10 Dollars, undated. TEMPLETON REID-ASSAYER; in field, TEN/DOLLARS. Rev. GEORGIA/GOLD. Rare.

North Carolina: *Christopher Bechtler*, Rutherfordton. 5 Dollars, undated. C. BECHTLER ASSAYER, and inner circle, RUTHERFORD COUNTY. *Rev.* NORTH CAROLINA GOLD; in field, 5/DOLLARS/20/CARATS/150. G./. Rare.

August Bechtler, son of preceding.

California: *San Francisco:*

(a) *Baldwin and Company.*

(b) *Cincinnati Mining and Trading Company.* 10 Dollars, 1849. Bust of Indian chief, with feather bonnet. *Rev.* CALIFORNIA TEN DOLLARS. An eagle flying, carrying shield.

(c) *August Humbert.* Fifty Dollars, 1851. Octagonal. UNITED STATES OF AMERICA. An eagle standing upon a rock; below, FIFTY DOLLS.; on the eight sides, AUGUSTUS-HUMBERT-UNITED-STATES-ASSAYER-OF GOLD-CALIFORNIA-1851. *Rev.* Engine turning.

(d) *Kellogg and Company.*

(e) *Miner's Bank.*

(f) *Moffat and Company.* 16-dollar bar, undated. MOFFAT & CO./20 $\frac{1}{2}$ CARAT/\$16.00/. *Rev.* Plain.

(g) *Norris, Grieg, and Norris.*

(h) *Pacific Company.* 10 Dollars, 1849. An eagle flying, carrying olive branch and hammer. *Rev.* Liberty Pole encircled by rays and stars.

(i) *Templeton Reid.* Identical with the Reid of Georgia.

(j) *United States Assay Office.*

(k) *Wass, Molitor & Co.* 50 Dollars, 1855. Diademed head of Liberty. *Rev.* SAN FRANCISCO CALIFORNIA-WASS MOLITOR & CO.; in wreath 50/DOLLARS.

At Sacramento: *J. S. Ormsby.* 10 Dollars, undated. UNITED STATES OF AMERICA-CAL.; in field, J. S. O. *Rev.* 10/DOLLS.

Oregon: *Oregon City. Oregon Exchange Co.* 10 Dollars, 1849. In field, 10.D.20.G(RAINS)/NATIVE/GOLD/TEN D. *Rev.* K. M. T. R. C. S.—o. t./1849. A beaver.

Colorado, Denver:

(a) *Clark, Gruber & Co.* CLARK, GRUBER & CO. An eagle. *Rev.* PIKES PEAK GOLD Pikes Peak; beneath, DENVER/TWENTY D.

(b) *J. J. Conway.* 10 Dollars, undated. J. J. CONWAY-& CO-BANKERS. *Rev.* Within circle of stars, 10; around, PIKES PEAK-TEN DOLLARS. (Apparently unique.)

(c) *John Parson & Co., Tarryall Mines.* 5 Dollars, undated. Eagle.—Quartz mill; below, ORO.

Utah: *Mormon Church, at Salt Lake City.* 20 Dollars, 1849. HOLINESS TO THE LORD Eye beneath mitre. *Rev.* G. S. L. C. P. G. ("Great Salt Lake City Pure Gold"). Two hands, clasped. 5 Dollars, 1860. "Holiness to the Lord" in cipher; recumbent lion.

Rev. DESERET ASSAY OFFICE. PURE GOLD. Eagle, with beehive on breast.

Deseret was the earlier name of the State of Utah.

PATTERNS FOR U. S. COINS.

[Right end of case.]

These patterns represent suggestions for coins, of which a few have been adopted. They exhibit a great variety of artistic achievement; and many of them are the results of monetary theories which have been proposed on occasions of financial stress. They are arranged chronologically and referred to by date.

1792. *Half-disme (dime)*. LIB(erty) PAR(ent) OF SCIENCE & INDUSTRY Bust of Liberty. *Rev.* UNI. STATES OF AMERICA Flying eagle; below, HALF/DISME. The first issue of the U. S. mint.
1814. Platinum Half-dollar. The origin of this piece is not known. It probably represents nothing more than an experiment in working platinum.
1836. Pattern of a silver Dollar, the coinage of which was about to be resumed after an interruption lasting from 1803 or 1804. *Obv.* Liberty seated; no stars around border. *Rev.* An eagle in flight amid a constellation of 26 stars, representing as many States of the Union.
Gold Dollar. *Obv.* Liberty cap in a glory. This type undoubtedly imitates the similar design on the Mexican coins then in common use in our country. *Rev.* Value and date in wreath.
1850. "Ring Dollar." The central hole was probably intended to increase the diameter of the piece, in order to meet the objection to the small size of the gold dollar.
1856. "Flying eagle," or "White Cent"; a somewhat rare pattern.
1863. Two-cents. *Obv.* Bust of Washington; around, GOD AND OUR COUNTRY, one of the earlier suggestions of a religious motto for the coins, which later took the form of "In God We Trust."
1865. Patterns of the coins, with the motto, "In God We Trust." The regular issue of the following year bore the motto.
- 1866-1867. Nickel Five-cent pieces, including one pattern with the bust of Lincoln. This denomination was added to the series of coins in 1866.
1868. Pattern in aluminum of a proposed *international* gold coin, with value of *five dollars*, or *Twenty-five francs*.
1871. Dollar. Types in very high relief; and from the seated female figure, with feather bonnet, generally known as "The Indian Queen" dollar.
1873. Trade-dollars. Six different designs.
1874. "International gold coin," value of *10 dollars* and bearing statements of equivalent values for Great Britain, France, Germany, Austria, and the Netherlands.
1877. Fifty-dollar pieces, gold and bronze. The heads on these two gold pieces are different, while reverse sides are the same as that of the bronze piece between them. Both types are very similar to the *double-eagle*. Each specimen is supposed to be unique. The question of adding such large pieces to the country's series of coins was never seriously considered.

1878. Patterns for the silver Dollar issued in 1878.
 "Goloid Dollar," so called because made of a composition of gold and silver, the composition being 1 part, or 40 cents, gold, 24 parts, or 60 cents, silver, and one-tenth alloy. The definite object of such an experiment can only be surmised. It was a failure, as the presence of gold can not be detected by the eye.
1879. "Stella" (\$4.00), gold. Head of Liberty; around, *6*G*.3*S*.7*C*7*G*R*A*M*S*. Rev. Star (*Stella*), ONE/STELLA/400/CENTS
 "Goloid Twenty Dollars." An entire series of the so-called "Goloid" coins was proposed. (See under 1878.)
 "Goloid Metric Dollar."
1882. Patterns for the nickel Five-cent piece issued in 1883. Also Five-cent and One-cent pieces of 1884 with useless central hole.
1885. Dollar, with edge inscribed E PLURIBUS UNUM.
1896. Patterns for nickel Five-cent and One-cent pieces.
1906. Pattern, gold, for new Double-eagle, by Mr. Barber.

PATTERNS OF GOLD COINS BY MR. SAINT-GAUDENS.

1907. (1) Eagles; trial pieces from the first die, without raised borders.
 1907. (2) The same, with raised borders.
1908. (1) Double-eagle; from first die, and with very high relief.
 (2) From same model, but diameter reduced to that of the eagle. Only specimens(?).
 (3) First issue, with these types; middle relief.
1910. Five-cents, nickel, with bust of Washington; five varieties.

COINS OF CONFEDERATE STATES OF AMERICA, 1861.

It appears that after seizing the mint at New Orleans, steps were taken by the Confederate government to coin money, and a reverse die for a *Half-dollar* was made, with which it was apparently intended to employ the obverse type of the Half-dollar then in circulation. Tradition has it that only four specimens were struck.

1689. Half-dollar, 1861. A United States Half-dollar of 1861, struck on reverse with a die copied from an alleged Half-dollar of the Confederate States of America. Rev. Arms of the Confederate States of America—a shield argent seven pales gules, chief azure seven stars, four and three; crest, Liberty Pole; the whole within a wreath of cotton and palm.
1690. Cent, 1861. Privately coined. Obv. CONFEDERATE STATES OF AMERICA; head of Liberty to left, with liberty cap adorned with six stars on band. Rev. Within a wreath of cane, cotton, and wheat, 1/CENT. Size, 12.

[Lower case.]
Indian Wampum.—(a) Specimens of the *wampum* used by northern Indians. The long beads are made from shells.

(b) Specimens of heavier *wampum* made of bone, from near St. Louis, Mo.

COINS AND TOKENS OF THE AMERICAN COLONIES.

The Mint at Boston, Massachusetts: 1. Shilling, undated. *Obv.* N. E. (=New England). *Rev.* XII, the mark of value, Twelve pence.

2. Shilling, 1652. *Obv.* An oak tree; around, MASATHVSETS IN. *Rev.* NEW ENGLAND ANO DOM—1652.

3. Shilling, 1652 Similar legends; type, a pine tree. The types of the remaining shillings, the *sixpence*, and the *threepence* are similar to the last. All are dated 1652, though the mint was active for several years (1652–1683).

Coinage of Lord Baltimore for Maryland.—12. Shilling. *Obv.* Bust of Lord Baltimore. *Rev.* Shield of arms. Also *sixpence*, *groat*, and a copper piece called *denarium*.

TOKENS STRUCK FOR USE IN THE COLONIES PRIOR TO THEIR INDEPENDENCE.

The "*Rosa Americana*" tokens.—These pieces were made in England by one William Wood, under a patent from the crown. They did not meet with favor, and the patent was later surrendered for a consideration.

17. Twopence, 1722. *Obv.* Bust of George I. *Rev.* Full blown rose.

18. Twopence, 1723. Similar to the last, but rose is crowned.

Carolina Token.—16. Penny token, 1694. Elephant. *Rev.* GOD PRESERVE CAROLINA AND THE LORDS PROPRIETORS.

The Higley Tokens, Granby, Connecticut.—23. Threepence, bronze, undated. VALUE .ME. AS. YOU. PLEASE. Deer standing to left; beneath, III. *Rev.* I. CUT. MY. WAY. THROUGH. A broad-ax. The first words of the legend, I CUT, are apparently a play upon the final syllables of the name *Connect-i-cut*.

COINAGE OF THE STATES AND OF THE CONFEDERATE CONGRESS, 1783–1789.

Connecticut.—29. Cent, bronze, 1785. Others are dated 1786 and 1787.

Massachusetts.—34. Cent, bronze, 1787. An eagle displayed. *Rev.* An Indian standing, holding bow and arrow.

37. Half-cents, 1787 and 1788. Type similar to No. 34.

New Jersey.—Cent, bronze, 1786. NOVA CAESAREA. Horse's head, to right. *Rev.* E. PLURIBUS. UNUM. Shield.

43. Cent, bronze, 1788. Similar to last, but horse's head to left.

Vermont.—44. Cent, bronze, 1786. VERMONTENSIVM. RES. PUBLICA. Pine covered mountains, behind which rise sun; below, plough. *Rev.* STELLA. QUARTA. DECIMA. All-seeing eye.

46. Cent, bronze, 1786. AUCTORI:—VERMON: Laureated bust to right. *Rev.* INDE(pendentia) ET LIB(ertas). Liberty seated to left.

THE CONGRESS.

In order to supply the country with coins of small denomination, the scarcity of which seems to have constantly hampered retail trade, and at the same time to supplant the large amount of wretched tokens that were constantly worked into circulation by speculators, the Congress took steps to issue copper cents; but the project was apparently never carried out, although the contractor—for the coins were to be made by a contractor—did coin a considerable quantity of the pieces.

47. "Fugio" Cent, 1787. *Obv.* UNITED STATES on a small raised circle; within the circle, WE/ARE/ONE, around, thirteen rings interlinked. *Rev.* A sun-dial on which the hours are indicated, and a meridian sun above; to left, * FUGIO *, to right, * 1787 *; *exergue*, MIND YOUR BUSINESS.

49. Similar to No. 47, but the rings on the obverse are inscribed with the names of the States.

PATTERNS AND TOKENS WHICH ORIGINATED IN THE PERIOD BETWEEN THE DECLARATION OF INDEPENDENCE AND THE ESTABLISHMENT OF A COINAGE BY THE REPUBLIC.

50. Pewter. Pattern dollar, 1776. *Obv.* Between two circles, AMERICAN CONGRESS; within the inner circle, WE/ARE/ONE; around the outer circle, rays which extend to an endless chain of thirteen round links, each inscribed with the name of one of the original States of the Union; on border, pellets. *Rev.* CONTINENTAL CURRENCY 1776; the type is similar to the reverse type of No. 47.

51. Similar to last, but reading CONTINENTAL CURRENCY, i. e. with two R's in CURRENCY.

52. Similar to No. 50, but signed by the artist E. G. FECIT, i. e., one "E. G. made it."

Chalmers, Annapolis, Md.—54 to 55a. Tokens in silver issued by I. Chalmers, at Annapolis.

The "Nova Constellatio" Coppers.—The thirteen States formed the "New Constellation" which the designer of this type had in mind. 56. Cent token, 1783. *Obv.* NOVA CONSTELLATION. An eye in a glory, surrounded by a circle of thirteen stars. *Rev.* LIBERTAS * JVSTITIA. Within a laurel wreath, U. S.; below, 1783.

The "Bar Cent."—58. Cent token, undated. *Obv.* In a plain field, U. S. A. *Rev.* Thirteen bars.

The "Immune Columbia."—59. Guinea, gold, 1785. *Obv.* Similar to No. 56. *Rev.* IMMUNE COLUMBIA; Columbia, seated to right, holding Liberty Pole in right hand and scales in left; below, 1785.

This piece is struck over an English Guinea of George III, which was dated 1775. Unique.

Private coinage of Ephraim Brasher, a jeweler of New York.—63. Doubloon, gold, 1787. *Obv.* * NOVA * EBORACA * COLUMBIA * EXCELSIOR * The sun rising above a mountain; in front, sea; below, BRASHER. *Rev.* * UNUM * E * PLURIBUS; an eagle displayed, with shield on breast; on right wing, EB; below, 1787.

64. Necessity piece. Mexican Peseta of 1785 countermarked EB by Brasher.

68. "Kentucky Cent," undated. *Obv.* E PLURIBUS UNUM; a pyramid of fifteen stars, each inscribed with the name of a State, the one at top inscribed K(entucky), whence the name given to the piece. *Rev.* UNANIMITY IS THE STRENGTH OF SOCIETY; a hand extending a parchment inscribed OUR / CAUSE / IS / JUST.

TOKENS AND PATTERNS FOR COINS WHICH PRESENT THE LIKENESS OF WASHINGTON.

It is almost certain that some of these pieces were made by those who advocated strongly that the likeness of the President should appear on the coins of the country; while others are nothing more than tokens, and some are very likely only medalets.

70. Cent, 1783. *Obv.* WASHINGTON & INDEPENDENCE. Draped bust of Washington, laureated, to left; below, 1783. *Rev.* UNITY STATES OF AMERICA; within an olive wreath, ONE / CENT; beneath the wreath, 1 / 100.

72. Cent, 1783. On reverse, UNITED STATES and Liberty seated by the sea, holding olive branch and Liberty Pole.

77. Cent, 1791. *Obv.* WASHINGTON PRESIDENT. Bust in uniform, to left; below, 1791. *Rev.* A spread-eagle; in beak, a scroll inscribed UNUM—E PLURIBUS; above, ONE / CENT; *edge*, UNITED STATES OF AMERICA.

85. Cent, 1792. *Obv.* WASHINGTON PRESIDENT I. Bust of Washington, to left. *Rev.* UNITED STATES OF AMERICA. A spread-eagle.

THE NATIONAL COINAGE, 1793.

The coins of our country are here arranged chronologically, and any particular coin, if in the collection, may be found by simply referring to the year of its issue.

The following table shows the period in which the different denominations were issued, or might have been lawfully issued; but certain denominations were not struck in some years or a term of years for reasons often now unknown:

COPPER AND BRONZE.

Half-cent, copper, 1793-1857. Similar to cent.

Cent, (1) Copper, 1793-1857. The head of the goddess of Liberty on the earlier issues of the Cent and Half-cent are imitated from the one on the medal by the French artist Dupré, made to commemorate the successful close of the struggle for independence. From 1840 to 1857 almost the same head is found on the Cent and Half-cent that was employed for the Eagle. Both are by the same engraver, Kneass.

(2) Copper-nickel, 1857-1864. The Cents of 1857 and 1858 are popularly known as the "Flying eagle Cent" and all from 1857 to 1864 as the "White Cents"; in 1858 the type of Liberty with a feather bonnet was first used; it was designed by Mr. J. B. Long-

acre, whose signature, L., is on the end of the ribbon in the back hair.

(3) Bronze, 1864-1909. The type of Liberty head with the feather bonnet is preserved throughout this period. (4) 1909. The bust of Mr. Lincoln on obverse is the work of Victor D. Brenner, whose signature, V. D. B., occurs on the first issues of 1909.

Two-cents, bronze, 1864-1873. *Obv.* Garnished shield. *Rev.* Value in a wreath. Designed by Mr. Longacre. The first coins issued bearing the motto, *In God We Trust*.

NICKEL.

Five cents, 1866 to present time. The first issue, with shield and value 5, was designed by Mr. Longacre. The present piece, 1883, was designed by Mr. C. E. Barber.

Three cents, 1865-1889. Head of Liberty—Numeral III.

SILVER.

Dollar, 1794-1804; 1840-1904: (1) 1794, bust of Liberty with loose hair. *Rev.* Naturalistic eagle. (2) 1795, bust of Liberty with hair tied back. *Rev.* Eagle, similar to last. (3) 1799, bust of Liberty similar to last. *Rev.* Eagle, displayed, with shield on breast—an adaptation of the Great Seal of the United States. (4) 1840-1873, full figure of Liberty seated.—Eagle with wings displayed. Engraved by Gobrecht. (5) 1873-1904, head of Liberty. *Rev.* Eagle with wings upraised. Engraved by Mr. George T. Morgan.

Trade dollar, 1873-1883. Designed by Mr. William Barber.

Half dollar, 1794-1807, types similar to dollar; 1807-1838, bust of Liberty to left, wearing Liberty Cap. *Rev.* Eagle; 1838-1892, seated Liberty figure and eagle; 1892, the current piece, to present time.

Quarter dollar, 1796 to present time. (See statement under Half dollar.)

Dime, 1796 to present time. See statement under Half dollar; after 1837, the reverse type is simply ONE/DIME in a wreath, instead of an eagle.

Half dime, 1794-1873. Types similar to the Half-Dollar until 1837, when simply HALF/DIME in a wreath occurs on the reverse.

Three cents, 1851-1873. *Obv.* A star, on which is a shield. *Rev.* Roman Numeral, III, within letter C.

GOLD.

Double-eagle (\$20.00): (1) 1849-1907. Head of Liberty. *Rev.* An eagle displayed, with shield on breast. This piece was designed by J. B. Longacre, whose signature, J. B. L., is on the truncation of the neck. (2) 1907. Standing figure of Liberty. *Rev.* Eagle in flight. Designed by Augustus Saint-Gaudens, whose signature, A. S. G. in monogram, is beneath the date.

Eagle (\$10.00), 1795-1804; 1838 to present time. (1) 1795-1797, bust of Liberty with pointed Liberty Cap.—Naturalistic eagle with wreath in beak. (2) 1797-1804, same obverse as before.—Eagle dis-

played, with shield on breast. The eagle was not struck from 1805 to 1837. The earlier issues of this piece, from 1796 to 1804, were 21-16ths of an inch in diameter, or the same as the Double-eagle of 1849, and for that reason this early *Eagle* is often mistaken for a *Double-eagle*. The coin bore no statement of value. (3) 1838-1907, head of Liberty with diadem inscribed LIBERTY. *Rev.* Eagle. Engraved by Kneass. (4) 1907, head of Liberty with feather bonnet. *Rev.* Eagle standing on bundle of arrows. Designed by Saint-Gaudens. The obverse type of this piece was intended originally for the cent.

Half eagle (\$5.00), 1795, still issued: (1) 1796-1807, bust of Liberty, with pointed Liberty Cap. *Rev.* Two types of eagle on reverse. Compare types of Eagle. (2) 1807-1834, bust of Liberty with close-fitting Liberty Cap. *Rev.* Eagle. Engraved by Reich. (3) 1834-1839, bust of Liberty with wavy hair bound by a fillet inscribed LIBERTY: *Rev.* Eagle. (4) 1839-1908, same type as on the Eagle. (5) 1908, bust of an Indian chief. *Rev.* Eagle standing on bundle of arrows. Designed by Mr. Bela Lyon Pratt. The devices on this piece and on the Quarter eagle of the same year are sunk below the level of the surface, so that it was not necessary to raise the edges of the coin.

Three dollars, 1854-1889. Head of Liberty with bonnet of plumes. *Rev.* 3/DOLLARS/1854. Engraved by Longacre. The head is really the same as that on the \$20 gold piece of 1849, but with a different headdress.

Quarter eagle, (\$2.50) 1795 to present time. The types of the Quarter eagle follow very closely those of the Half-Eagle.

Dollar, 1849-1889. Two types of obverse: (1) 1849-1854, head of Liberty with diadem; (2) two varieties: (a) Small head of Liberty with bonnet of plumes, (b) large head of Liberty with similar bonnet. *Rev.* The same for all: 1/DOLLAR/1849. The Liberty head on this piece is also the same as on the \$20 piece.

COMMEMORATIVE COINS.

The United States has struck but few special coins in commemoration of historical events. The first commemorative coins were issued in 1892 in connection with the celebration of the 400th anniversary of the discovery of America. The Congress has authorized the following:

- 1892-3. Columbian Half dollar, silver. Head of Columbus—Spanish galley.
- 1893. Columbian Quarter dollar, silver. Crowned bust of Queen Isabella.—The spinner.
- 1899. Lafayette Dollar, silver. *Struck to commemorate the unveiling of a statue of Washington in Paris, the gift of American school children.* Heads of Washington and Lafayette, conjoined.—Statue of Washington.
- 1903. Dollar, gold. *Louisiana Purchase Exposition.* Two types of obverse: (1) Bust of President McKinley. (2) Bust of Thomas Jefferson. *Rev.* Alike for both 1 and 2: ONE/DOLLAR/1803/1903/.

1904-5. Dollar, gold. *Lewis and Clark Exposition*, Portland. Bust of Lewis.—Bust of Clark.

"HARD TIMES TOKENS."

Specimens of the cent tokens that appeared in 1834 and following years. The types of some of them are of a political character, whilst others bear the advertisements of merchants.

Token, 1834. A PLAIN SYSTEM. VOID OF POMP. Pres. Jackson holding sword and purse. Rev. THE CONSTITUTION AS I UNDERSTAND IT. Balking mule, labeled LL. D.; above, ROMAN FIRMNESS.

Token, 1834. MY SUBSTITUTE FOR THE U. S. BANK. Facing bust of Jackson; on breast, EXPERIMENT MY CURRENCY MY GLORY. Rev. PERISH CREDIT. PERISH COMMERCE. Boar running; on his side, MY THIRD HEAT; above, MY VICTORY; below, DOWN WITH THE BANK.

CIVIL WAR TOKENS.

In 1863 during the stress of the Civil War there appeared numerous issues of one-cent tokens by private business firms, which may in a measure have been necessary in order to supply a deficiency of small coin. They are usually classified into *Civil War Tokens* and *Merchants' Cards*, according as the types are patriotic or personal.

CANADA.

[Section 17, upper case.]

Since 1867 there has been a single coinage for all Canada, except Newfoundland, which has a separate coinage. A mint was established at Ottawa in 1908, and now both gold and silver are struck there. The first gold coins struck at Ottawa were sovereigns, distinguished from those of the London mint by the mint mark C on the basis of the St. George and Dragon group; later, 1912, ten and five dollar pieces were added. A rich variety of tokens forms the chief numismatic interest of Canadian currency.

MEXICO.

[Section 21, upper case.]

The coinage of the Spanish Viceroyalty of Mexico, which was the first coinage to be established in the Western Hemisphere, dates from 1535. At first only silver was coined at the Mexican mint, but in 1542 a small coinage of copper was put forth in the denominations of two and four *maravedí* pieces. Copper coins, however, did not prove acceptable to the people and the use of that metal was not continued. In 1675 the right to coin gold was accorded the Spanish American mints, which by that time had been established at various places in South America.

The coinage in Mexico, and also in other Spanish-American countries, was very extensive, much larger indeed than the needs of the country, and the vast amount of it was due not only to the richness of the mines, at one time the most productive in the world, but also to the existence of a law that prohibited the sale and exportation of bullion, so that all gold and silver must first be converted into coins before the products of the mines could be disposed of in the channels of commerce.

The earliest types of the Spanish-American coins were a shield of royal arms and the pillars of Hercules and the *peso* became known as the "Pillar dollar"; later a cross took the place of the pillars on the reverse; in 1732 the cross was supplanted by a device composed of the two hemispheres with a crown above, and between the two crowned pillars of Hercules, which emerge from the sea, a type referring to the claims of Spanish sovereignty over the two hemispheres and the sea. The *peso* bearing this type also became popularly known as the "*Spanish pillar dollar*," in Spanish the *Columnario*, and also *Mundos y mares*. In 1773 the portrait of the king of Spain and the arms of Spain became the types of all Spanish-American coins. In 1732 the Mexican mint was provided with mechanical equipment and the coins struck thereafter, because of their superior workmanship and chiefly because of their more

uniform and accurate weight and value, became known as "Milled" to distinguish them from the crude coins produced by the earlier and less efficient processes and which are often described as "Cob coins" on account of their irregular form and crude workmanship. The "Spanish milled dollar" soon became the unit of value throughout the Americas and also served the commerce of China and of the Orient. "Payable in Spanish milled dollars" is found on the paper currency issued by Congress to finance the War of Independence, and for many years after that time the same coin figured generally in contracts and leases drawn in this country.

1. Toston (4 reales), undated, of *Charles I and his mother, Joanna* (A. D. 1521-1556). Crowned shield of arms—Pillars of Hercules, crowned.

7 and 8. Pesos, silver, 1611, 1621, of *Philip III (1598-1621)*. Types similar to No. 1. These are often called "Cob coins" because of their crude workmanship.

9. Peso, silver, 1629, of *Philip IV (1621-1665)*. Crowned shield of arms.—Cross with arms of Leon and Castile, lions and castles, in angles. A "Cob Dollar."

10. Media onza, or half-Doubloon, gold, 1739, of *Philip V (1700-1746)*. Bust in armor.—Crowned shield of arms.

15. Peso, silver, 1737, of the same. Crowned shield of arms.—The two hemispheres, crowned, between the two Pillars of Hercules; about each pillar, a scroll inscribed PLUS-ULTRA. Known in commerce as the "Spanish Milled Dollar," to distinguish it from the cruder coins of earlier date. When this type of coins appeared, the Mexican mint had just been provided with mechanical equipment. Popularly known as the "Globe Dollar."

49. Onza or Doubloon, gold, 1774, of *Charles III (1760-1788)*. Bust with mantle over armor.—Crowned shield of arms, within collar of the Golden Fleece. Countermarked "16" (dollars) on head.

51. Proclamation Peso, silver, 1760, of the same. About the middle of the eighteenth century the issue of a special coinage to commemorate the accession of the Spanish king became established custom in the American possessions.

58. Peso, 1773, of the same. Bust with mantle over armor.—Between the Pillars of Hercules, a crowned shield of the arms of Spain.

122. Peso, 1796, of *Charles IV (1789-1808)*. Bust and arms similar to No. 58; countermarked on obverse with bust of George III of Great Britain. At the time of the money stringency in England in 1797 the Bank of England, which had suspended specie payment, received authority to countermark Spanish silver coin and place it in circulation at the rate of 4s. 9d. the *peso*. Since the *pesos* could be bought in the market for less than they passed for when countermarked, the stamp was extensively counterfeited. Finally it became necessary to restrike the Spanish silver, specimens of which will be found under British coins, section 6, lower case, *Bank of England Tokens*.

135. Bronze pattern of a Proclamation Toston, 1789. A. CARLOS. IV. REY. DE ESPAÑA. Y. DE LAS YNDIAS. Crowned shield of arms—PROCLAMADO. EN. MEXI/CO. AÑO DE/1789/*4R*

197. *Real*, 1809, a denomination which in certain States of our country was known as the *Levy*, or the '*Leven penny Bit*', and also as the *Mexican shilling*. Its value was about 12½ cents.

199. *Medio-real*, the *Half-real*, a denomination which circulated in our country as the *Fippenny*, or *Fv'p'ny Bit*, that is, the *Five Penny piece*, or *half-shilling*.

NECESSITY COINAGE OF THE MEXICAN REVOLUTION.

In 1810 the long intermittent struggle for independence began in Mexico under the leadership of the patriot priest, Miguel Hidalgo, who was defeated, captured, and shot. In 1812 Morelos, another priest, headed the revolutionary cause and met with Hidalgo's fate. To meet the expenses of his military operations Morelos resorted to an extensive necessity coinage, while his army, known as the *Army of the South*, was operating in the State of Oaxaca. This coinage consisted partly of base silver, but chiefly of bronze, in which metal all the usual silver denominations were cast in enormous quantities.

Other irregular coinages of the period were: (a) The coinage of the Central Junta acting in behalf of the king at City of Mexico; (b) the provisional coinages of the States of Nueva Vizcaya and Zacatecas; (c) a series of coins cast in molds produced from current coins, perhaps in the State of Chihuahua; and (d) the very crude coins made with a hammer at Sombrerete, by direction of General Vargas, commander of the loyalist forces.

210. *Peso*, silver, 1813, of the *Central Junta* at Mexico. *Obv.* VICE. FERD. VII. DEI. GRATIA. Upon a bridge of three arches, an eagle perched upon a cactus; below, 1813. *Rev.* S. P. CONG. NAT. GUV. T. 8R. S. M.—a halberd and a quiver with three arrows, crossed; above, a hand holding a bow with arrow fixed and pointing upwards; below, a lasso.

222. *Peso*, 1810, issued by *Gen. Vargas* at Sombrerete, State of Zacatecas. Made by means of a hammer.

225-226. *Pesos*, bronze, 1812, issued by *Morelos*. *Obv.* A bow with arrow fixed and pointed upward; beneath, S U D, "Army of the South". *Rev.* Monogram of Morelos; below, 8 R(eales) / 1812.

In the rest of the group other denominations may be seen, and also a few specimens in silver.

THE EMPIRE OF MEXICO.

In 1821 Spain recognized the independence of Mexico, and in May of the following year the successful leader, Don Augustin Iturbide, was proclaimed emperor with the title of Augustin I. This empire lasted but a year, for in March, 1823, Iturbide was compelled to abdicate because of cruelty.

249. *Half Onza* (4 Escudos), 1823. *Obv.* AUGUSTINUS DEI PROVIDENTIA; nude bust to right; below, 1823. *Rev.* MEX. I. IMPERATOR. CONSTITUT. 4 S. J. M. ("The First Constitutional Emperor of Mexico"); on an oval shield within a garnished cartouche, an eagle standing upon a cactus.

250. *Peso*, 1822. *Obv.* AUGUST. - DEI. PROV.; nude bust to right; below, M. 1822. *Rev.* Legend similar to No. 249; a crowned eagle standing upon a cactus.

THE REPUBLIC OF MEXICO.

In October of 1823 a federal republic was proclaimed and a provisional government established to draft a constitution. The provisional government proceeded at once to the coinage of money. The types of this first republican coinage, as will be readily seen, differed but slightly from those adopted by the Republic of Mexico after the adoption of the federal constitution in October of 1824.

A. THE PROVISIONAL GOVERNMENT (OCT. 4, 1823—OCTOBER, 1824).

261. Peso, 1824. *Obv.* REPUBLICA MEXICANA; an eagle standing to left with left foot upon a nopal cactus which is upon an island, and grasping a serpent in beak and right claw. *Rev.* In a glory a liberty cap with *Libertad* inscribed on the crown; below, *8R(eales). M. J. M. 10 D^a. 20 G^a.

NOTE.—M, City of Mexico; J. M., signature of the mint-master; 10 D(ineros) 20 G(ranos), fineness of the piece; equivalent to about 903 thousandths.

B. THE REPUBLIC OF MEXICO (1824—1864).

271. Onza, 1824. *Obv.* REPUBLICA MEXICANA; the arms of Mexico—an eagle standing on a cactus, the head turned to right. *Rev.* LA LIBERTAD EN LA LEI; right hand holding a Liberty Pole upon the book of the Constitution; below, 8E(escudos) M. 1824. J. M. 21 Qs(UILATES=CARATS).

272. AR. Peso, 1825. *Obv.* Arms of Mexico, as No. 261. *Rev.* In a glory, a Liberty Cap with *LIBERTAD* inscribed round edge; below, same legend as on No. 261.

Besides the mint at the *City of Mexico*, there were mints at *Chihuahua, Culiacan, Durango, Guadalupe y Calvo, Guadalajara, Guanajuato, Hermosillo, Oaxaca, Real de los Alamos, San Luis Potosi, and Zacatecas.*

C. THE EMPIRE OF MAXIMILIAN (1864—1867).

During this short-lived empire, which was established by means of French arms invited by a small class of Mexican notables, four mints struck coins for the emperor, the remaining establishments not being within range of imperial sway.

385. AV. 20 Pesos, 1866. *Obv.* MAXIMILIANO—EMPERADOR; bust of the emperor, to right; beneath, on a scroll, the names of the artists, NAVALON and OCAMPO. *Rev.* IMPERIO MEXICANO. The imperial arms; below, 20 PESOS—1866 M.

387. AR. Peso, 1866. Legends and types similar to No. 385, but reading 1 PESO—1866 M. on reverse.

The coins of Maximilian were on the decimal system. Note the 50 CENT(avos), the Decimo, and the Medio-decimo, or 5 CENT(avos).

D. THE REPUBLIC OF MEXICO, RESTORED, LATER THE UNITED STATES OF MEXICO, (*Estados Unidos Mexicanos*).

397. AV. 20 Pesos, 1870. *Obv.* REPUBLICA MEXICANA; the arms of Mexico; below, 1870. *Rev.* Over scroll of the constitution and a sword, crossed, a pair of scales (Justice); above, Liberty Cap in a glory; below, M^o C. VEINTE PESOS. 875.

408. Peso, silver, 1874. Legends and types similar to No. 272, the old types restored.

402—403. AV. 10 Pesos, 1905. *Obv.* Bust of Miguel Hidalgo, to left; around, DIEZ PESOS—M * 1905. *Rev.* ESTADOS UNIDOS MEXICANOS; arms of Mexico; edge, INDEPENDENCIA. Y. LIBERTAD.

CENTRAL AMERICA.

UNDER SPAIN.

[Section 21, lower case.]

Central America or Guatemala was formed into a captain generalship under Spain and the city of Guatemala, later of New Guatemala, became the seat of the capital and of a mint. The types of the coins of Spanish Central America were the same as those of the other Spanish-American coins. (*See under Mexico, p. 75.*)

CENTRAL AMERICA, INDEPENDENT.

In 1821 the Central American States declared their independence of Spain, and in the following year united with Mexico, then an empire under Iturbide, Augustin I. In July of the following year the Central American States withdrew from Mexico and established the confederate *Republica del Centro de America*. This union lasted until 1839(?) when it was dissolved; reorganized in 1842, but soon again dissolved; after which the several States one by one adopted republican constitutions.

A. UNDER MEXICO (1822-1823).

1. AR. Proclamation Real, 1822, of Augustin I, 1822-1823. *Obv.* AUGUSTIN. I. EMPERAD. DE. MEXICO; bust of Augustin to right. *Rev.* GUAT. EN LA PROCLAM. DE SU. I. EMP.; within a laurel wreath, 26 DE DEC./DE 1822/23 DE LA/INDEP; shield of arms of Central America between ends of branches of the wreath.

B. REPUBLIC OF CENTRAL AMERICA (1823-1839).

2. AV. Onza, 1825. *Obv.* REPUBLICA DEL CENTRO DE AMERICA; sun rising behind range of five mountain peaks; below, 1825. *Rev.* LIBRE CRESCA FECUNDO; within a circle, a tree whose stem divides the mark of value, 8-E; below, NG (Nueva Guatemala) M. 21 Q^a. *Edge*, hatched obliquely.

5. Peso, silver, 1825. Legends and types similar to No. 2.

Issues of the other mints of the Confederacy, as of San José, Costa Rica, mm. CR, will be found among the coins of those respective mints.

THE INDEPENDENT REPUBLICS OF CENTRAL AMERICA.

COSTA RICA.

From the dissolution of the Republic of Central America, 1839, until 1848 Costa Rica was an independent State under the old constitution; in 1848 the constitution of the *Republic of Costa Rica* was adopted.

1-4. AR. Coins struck for the confederate *Republic of Central America* at the mint of Costa Rica at San José.

GOLD.

6. Necessity Escudo, 1842; struck by President Carillo during his contest with Morazan, by whom he was finally defeated and banished. *Obv.* EST. D. COSTA-RICA; six-pointed star; below, palm and laurel branches in saltire. *Rev.* Within a circle, a tree whose stem divides the mark of value, 1-E(*escudo*); around, 21 Q(*quiles*=carats).—M.M.1842.

11. Media onza, 1850. *Obv.* REPUBLICA DE COSTA RICA; garnished shield of arms. *Rev.* AMERICA CENTRAL; an Indian woman, leaning upon a column which bears the date of independence, 15/DE/SET/DE/1821.

19. 20 Colones, gold, 1897. Shield of arms. *Rev.* Bust of Columbus to right; below, value, VEINTE COLONES.

SILVER.

36. Real, 1849. A tree. *Rev.* Facing female bust, with nude breasts.

Since 1850 the national arms are regularly found on the coins of Costa Rica.

REPUBLIC OF GUATEMALA.

The types of the coins of the *Republic of Central America* were continued on the coins of Guatemala until 1847, when the national arms appeared on the obverse of the rather irregular issues of commemorative *reales*. In 1859 the bust of President (1851-1865) Carrera, engraved by Johann Baptist Frener, a Swiss medallist who was engraver at the Guatemala mint from 1854 to 1893, formed the obverse type; and after his death the bust of Carrera as *Founder of the Republic*, was still continued on the coins of Guatemala. The reverses bore the national arms.

In 1870 the arms of the Republic displaced the portrait of Carrera, and at the same time the decimal system, with a *peso* of 100 *centavos*, was introduced. In 1872 a female figure representing Guatemala appeared on the obverse, and on reverse the present arms of Guatemala, over two crossed guns, a parchment surmounted by a bird of paradise. Later, a laureated bust of Liberty supplanted the seated female figure.

1. Peso, silver, 1842. Range of five mountain peaks, above which rise the sun. *Rev.* Tree.

2. Onza, gold, 1863. *Obv.* RAFAEL CARRERA P (*Presidente*) DE LA R. (*Republica*) DE GUATEMALA; head of Carrera to right. *Rev.* Arms.

21. Peso, silver, 1866. *After the death of Carrera.* *Obv.* R. CARRERA FUNDADOR DE LA R. DE GUATEMALA; head of C. to left. *Rev.* National arms.

22. Peso, silver, 1872. Female figure, Guatemala. *Rev.* National arms.

23. Peso, silver, 1882. Laureated bust of *Libertad*, to left. *Rev.* Arms of Guatemala.

UNION OF HONDURAS, NICARAGUA, AND SALVADOR.

After the dissolution of the Republic of Central America in 1839 these three states made repeated efforts to effect a union, but with small success. They came nearest to success in 1849-1851. During this brief period a large quantity of early Spanish and other foreign coins were countermarked with the device of the Union, namely, a shining sun above a range of three mountains.

a. Necessity Peso, 1683, of Charles II, very crude "cob" piece. On obverse, round countermark: sun above three mountains.

b. Necessity Half-peso, Pentagonal portion cut from center of a peso of 1757.

HONDURAS.

The Republic of Honduras was established in November of 1838, before the dissolution of the Confederation of Central America, in 1839. An interesting feature of the coinage of Honduras is an extensive "*Necessity coinage*" in base metal of all denominations from the *half-real* to at least the *8-peso* piece, or *media onza*. These coins were issued as *provisional coins* from the national mint at Tegucigalpa.

2-9. Bronze and billon *provisional coinage*, dating from 1845 to 1862.

10. 5-pesos, gold, 1896. Head of Liberty. *Rev.* Arms of Honduras; above, on a scroll, U-N-I-O-N; and above the scroll the initial letters of the names of the five countries forming the Union: G. S. H. N. C.—Guatemala, Salvador, etc.

11. Peso, silver, 1881. Female figure holding flag of the Central American Union. *Rev.* Arms of Honduras.

NICARAGUA.

The coinage of Nicaragua has never been extensive. The national arms and the indication of value form the types.

SALVADOR.

1. 20-pesos, gold, 1892. REPUBLICA DEL SALVADOR; arms of Salvador. *Rev.* AMERICA CENTRAL; laureated bust of Liberty to left; below, 20 Pesos.

5. Peso, silver, 1893. Similar to No. 1. *Rev.* Bust of Columbus, to left; above, CRISTOBAL COLON; below, UNO PESO—AMERICA CENTRAL.

BRITISH HONDURAS.

This portion of Central America became a British possession in 1667, though the ownership was not finally acknowledged by Spain until 1783. A bronze *cent* was the first special coinage for this colony, in 1885. The present monetary arrangement is the same as for Canada.

PANAMA.

The Republic of Panama was established in 1904. Its coinage is based on the gold *balboa*, of same weight and fineness as the gold *dollar* of the United States of America. The gold *balboa* is not coined. The *peso* is of the same standard as the *5-franc* piece of the Latin Monetary Union—that is, 25 grams, 900 one-thousandths fine—and is equivalent to the half of the gold *balboa*. The first issue of coins of Panama included a silver $\frac{2}{3}$ *centesimos de balboa*, but the piece was so small that it was withdrawn from circulation and in 1907 a nickel piece of the same denomination and more convenient size substituted.

SOUTH AMERICA.

UNDER SPAIN.

[Section 22]

All Spanish South America was organized into a single vicereignty with Lima as the capital in 1542. In 1739 a second vicereignty was organized in the northern portion of the continent and was known as New Granada (*Nueva Granada*), of which Santa Fe de Bogota became the capital. A third vicereignty was established in 1776, that of Buenos Aires.

Coinage mints were established in each of these vicerealties, and convenience to mining regions in some required two or three mints. Thus mints were established at Lima by Philip III (1598-1621); at Potosi in 1650 by Philip IV; at Santiago de Chile by Ferdinand VI (1746-1759); in the vicereignty of New Granada a mint was established in 1739 by Philip V and at Popayan by Ferdinand VI.

The arrangement of the coins is according to mints.

MINT AT LIMA.

2. Peso, silver, of *Charles II* (1665-1700). *Obv.* A cross with arms of Leon and Castile—lions and castles—in the angles. *Rev.* Two Pillars of Hercules, crowned, standing in the sea. A "Pillar Dollar."

6. Onza, or *Doblone de a ocho*, 1709, of *Philip V* (1700-1724-1746). *Obv.* PHILIPPVS. V. D. G. I. SPANIAR. (*Ispaniarum*); within a circle of pellets, cross with arms of Leon and Castile in angles. *Rev.* ET YNDIARVM REX; two crowned pillars standing in the sea; across the field,

L-8-H (Lima, 8 reales, H-mint-master)

P-V-A (Plus Vlra)

7-o-9 (1709)

9. Onza, gold, 1751, of *Ferdinand VI* (1746-1759). *Obv.* FERDINAND VI. D. G. HISPAN. ET IND. REX.; bust with cuirass, to right; below, * 1751 *. *Rev.* INITIUM SAPIENTIAE TIMOR DOMINI; crowned shield of arms within the collar of the Order of the Golden Fleece; at sides, J (signature of mint-master)—8 (reales); below, * LM *- * LM *, that is, *Limae*.

10. Peso, silver, 1755. *Obv.* FERDND. VI. D. G. HISPAN. ET IND. REX.; A crowned shield of arms of Leon and Castile, three lilies in the center and a pomegranate on the base; at the sides of the shield, */J/M/*-*/8/* *Rev.* VTRAQVE VNUM; the two hemispheres, crowned, above the sea, between the two crowned Pillars of Hercules; about each pillar a scroll inscribed PLUS-ULTRA; below, LM * 1755 * LM. *Edge*, a wreath.

21. Peso, silver, 1774. *Obv.* CAROLUS. III.-DEI. GRATIA.; laureated bust, cuirassed and draped, to right; below, 1774. *Rev.* HISPAN. ET IND. REX (LIMAE). 8R. M. J.; between two pil-

lars, a crowned shield of arms of Leon and Castile; about the pillars a scroll inscribed PLUS-ULTRA.

65. Onza, gold, 1790. CAROL. IV. D. G. HISP. ET IND. R.; bust cuirassed and draped, to right; below, 1790. *Rev.* IN UTROQ. FELIX AUSPICE DEO.; type similar to No. 9.

66. Proclamation Peso, 1789. *Obv.* CAROLUS. IV. D. G. HISP. ET. IND. REX.; within the collar of Order of Golden Fleece, a crowned shield of arms. *Rev.* PUBLIC. FIDELIT. JURAM. 10. OCTOBRIS. 1789; between two pillars, a double eagle with oval shield of the arms of the city of Lima. A commemorative piece relating to the oath of allegiance to the King who had just acceded to the throne of Spain.

127. Similar to last, but in honor of Ferdinand VII.

THE MINT AT POTOSI.

3. Peso, silver, 1674. *Obv.* CAROLUS. II. D. G. HISPAN. IARVM. R.; a cross with the arms of Leon and Castile in the angles; at sides, P(otosi)-E.; beneath 1674. *Rev.* POTOSI. ANO. 1674. EL PERUV.; two pillars; across the field,

P-8-E=P(otosi)-8 (reales)-E (mint.master)

PLV-SVL-TRA.

E-74-P=E and P as in first line; (16)74.

NOTE.—The date occurs three times on this coin. The same is true of Nos. 4 and 5 that follow.

Coins issued from the various other mints will readily be found by consulting the labels. These mints are Santiago de Chile, Santa Fe de Bogota, and Popayan.

ARGENTINE REPUBLIC.

[Section 22.]

Formerly belonging to the viceroyalty of Peru, erected into the separate viceroyalty of Río de la Plata; governed by a general constituent assembly from 1813, and by that body declared independent in 1816 with the name of the *United Provinces of La Plata*; with the dictatorship of Jean Manuel de Rosas in 1835 the country took the name of *Republica Argentina Confederada*, and later, on the adoption of the new constitution in 1852, the *Republica Argentina*.

The first republican coins, described below, were struck at Potosi in Peru from 1813 to 1815, but the disaster of Sipe Sipe in the latter year threw the Potosi mint back into the hands of the Spanish, and the coinage was interrupted until the establishment of a national mint at Rioja in 1824.


The law of July 17, 1836, prescribed that the portrait of the newly chosen dictator, Rosas, should be placed on the coins; later, at the demand of Rosas, his portrait was replaced by the national coat of arms, and around, the laudatory legend, ETERNO LOOR AL RESTAURADOR ROSAS (*Eternal Glory to the Restorer Rosas*).

The present system of coins was established by the law of November 5, 1881.

UNITED PROVINCES OF RIO DE LA PLATA (1813-1835.)

1. AV. Onza, 1828. *Obv.* PROVINCIAS DEL RIO DE LA PLATA; face of radiate sun. *Rev.* EN UNION Y LIBERTAD. RA. P. 8 S.; between two laurel branches, an oval shield of arms upon a trophy of four flags, two cannon barrels, and a drum; beneath, 1828.

2. AR. Peso, 1813. *First coinage of the republic.* *Obv.* PROVINCIAS DEL RIO DE LA PLATA; face of radiate sun. *Rev.*

EN UNION Y LIBERTAD  J.; on an oval shield two hands joined and holding a lance surmounted by a Liberty Cap; at sides, 8-R(eales); below, 1813.

The *medio peso*, *peseta*, and *real* have types similar to those of the *peso*.

Argentine Confederation.—15. AV. Onza, 1836. *Obv.* REPUB. ARGENT.-CONFEDERADA; bust of the Dictator, Rosas, in uniform, to left; below, ROSAS. *Rev.* POR LA LIGA LITORAL SERA FELIZ. R. 8 S.; a mountain by the sea; below, trophy of arms and the date.

17. AR. Peso, 1838. *Obv.* ETERNO LOOR AL RESTAURADOR ROSAS; Arms of the Confederation; at sides, 8-R(eales). *Rev.* REPUB. ARGENTINA-CONFEDERADA. R.; a mountain by the sea; below, trophy of military arms.

The divisional pieces have types similar to the *Pesos*.

Argentine Republic.—24. AV. Argentino, 1883. *Obv.* REPUBLICA ARGENTINA; oval shield of arms; below, 1883. *Rev.* Head of Liberty to right; above, *LIBERTAD*; below, 5 PESOS * UN ARGENTINO *; 9 D^{os}. FINO; in field, OUDINE; edge IGUALDAD ANTE LA LEY.

25. AR. Peso, 1882. Similar types to No. 24, but head of Liberty to left.

Minor coins of nickel and bronze, usually with national arms on obverse and value on reverse.

City of Buenos Ayres.—The following bronze pieces represent the depreciated paper currency in circulation at the time:

41. Decimo (1/10 of current Peso), 1822. *Obv.* Oval shield of arms. *Rev.* BUENOS AYRES/1822/UN DECIMO.

State of Buenos Ayres.—50. AR. Peseta, 1853. PROVINCIA DE BUENOS AYRES; Within oak wreath, 2 (reales). *Rev.* CASA DE MONEDA—DOS REALES; within wreath, 1853.

Province of Cordova.—50. AR. Real, 1841. PROVINCIA DE CORDOVA. Oval shield of arms. *Rev.* Radiate sun; below, P. N. P.

56. AR. Peseta, 1844. PROVINCIA DE CORDOBA. A castle with flag, flanked by six flags, crossed. *Rev.* CONFEDERADA Sun; below, 2 R(eales). 1844.9 D^{os}.

BOLIVIA.

The Republic of Bolivia was founded in 1825 out of territory that had formed a part of Peru and was named in honor of the distinguished South American liberator, Simon Bolivar. The country was reunited with Peru in 1836, but the Confederation proved unsatisfactory to certain restless Peruvian leaders and it was accordingly disrupted by the sword of Gamarra in 1839.

The old Spanish monetary system was retained in Bolivia until 1863, when the decimal system was introduced into the coinage and the *boliviano* of 25 grams and 900-thousandths fineness supplanted the *peso* of 4 reales; but the coinage of the *boliviano* has long been suspended and the active unit of the system is the $\frac{1}{2}$ *boliviano*, equivalent to the *franc*. The coinage of nickel was introduced in 1883.

GOLD.

1. Onza, 1831. LIBRE POR LA-CONSTITUCION Bust of Bolivar; beneath the bust, BOLIVAR. Rev. REPUBLICA BOLIVIANO Mount Cerro de Potosi and the sun rising behind the mountain; to left llama; to right, sheaf of grain; below, *****/P. 8 S(cudos).

2. Media Onza, 1852. In honor of President Belzu, 1848-1855. LOS EMPLEADOS DE POSTOSI Female figure, Bolivia, seated to right holding child in arms and placing hand on standing boy; to left, arms of Bolivia; below, AL PRESIDENTE M. Y. BELZU. Rev. PROVIDENCIA PERSEGUE EL CRIMEN (*Providence pursues crime*); a hand from clouds with flaming sword drives man armed with torch and serpents. (See also Nos. 12 and 29 in honor of Pres. Belzu.)

Yngavi.—4. $\frac{1}{4}$ -onza, undated. In honor of Gen. Gamarra for victory over Santa Cruz at Yngavi, Jan., 1839. Obv. An Indian walking to left and blowing a horn; around, POTOSI TRASMITTE A LA POSTERIDAD (*Potosi transmits to posterity*); Rev. LA GLORIA DEL VENCEDOR DE INGAVI (*"The glory of the conqueror of Yngavi"*); An arm, with BALLIN inscribed upon it, supports a flag staff.

SILVER.

14. Peso (8 Sueldos) 1825. Jeton, in honor of Simon Bolivar. Obv. SIMON BOLIVAR LIBERTADOR DE COLOMBIA Y DEL PERU; bust of Bolivar to right. Rev. POTOSI MANIFESTA SU GRATITUD AL GENIO DE LA LIBERTAD; mount Cerro de Potosi and rising sun; below, 1825.

23. Boliviano, 1867. Obv. REPUBLICA BOLIVIANA; an oval shield of arms, surmounted by a condor, over a trophy of military arms; below, eleven stars. Rev. LA UNION ES LA FUERZA; within a wreath, 1/BOLIVIANO 500/G./9. D. FINO; below (POTOSI). 1867. F. P.; edge, BOLIVIA LIBRE E INDEPENDIENTE 1821.

32. Boliviano, 1865. In honor of Dictator Mariano Melgarejo and Mariano Donato Muñoz, Secretary of Potosi. Obv. A LOS PACIFICADORES DE BOLIVIA; the busts of Melgarejo and Muñoz, conjoined; to left in field, their names. Rev. CANTERIA DE POTOSI SETIEMBRE 5 DE 1865; in the field, AL/VALOR/Y/AL/TALENTO/nine stars.

47. 1/5-Boliviano, 1879. In honor of President Hilarion Daza, 1876-1879. Similar to the Boliviano, No. 23, but reading ENERO 14 DE 1879 below the stars. Rev. EL EJERCITO NAL. AL PRESIDENTE DE LA REP^a; head of Daza to left; beneath, H. DAZA.

The minor coins in nickel and bronze have generally for obverse types, the arms of the Republic, and for reverse, statement of value.

CHILE.

[Section 22.]

Assisted by the Argentine general, Saint Martin, Chile secured independence in 1818. In the same year Don Hilarion de la Quintana, in the capacity of a virtual dictator, issued a decree which supplanted the Spanish coins with new and striking designs (see No. 15); but the old Spanish monetary system was retained by the young republic. In 1848, or long before the majority of the Latin American countries took such action, Chile introduced the decimal system into her coinage, and struck a *peso* of 10 *decimos* and 100 *centavos*, weighing 25 grams, and nine-tenths fine, so that the piece was the equivalent of the 5-franc piece of the Latin Monetary Union.

The monetary law of 1895 made the gold coins 22 carats fine (0.91666) and the silver 835-thousandths fine, and at the same time reduced the weight of the *peso* to 20 grams.

GOLD.

1. Onza, 1823. *Obv.* EL ESTADO DE CHILE CONSTIT. INDEPENDIENTE*; range of mountains including two active volcanos; sun above, and below, A. D. 1818. *Rev.* POR LA RAZON O LA FUERZA. S. 8E. F. I.; two flags in saltire behind a column surmounted by a globe; above, a star; below, 1823.

2. Onza, 1836. *Obv.* REPUBLICA DE CHILE; shield of arms supported by guemal and condor, each crowned; below, * 1836 *. *Rev.* IGUALDAD ANTE LA LEI. 8E. I. J.; a right hand laid upon book of the constitution; above, sun; below, * 21 Q* *.

3. Onza, 1839. *Obv.* REPUBLICA DE CHILE S.; *Obv.* Similar to No. 2. *Rev.* Legend as No. 2; Liberty standing facing and resting her right hand upon altar of the constitution, the book of which inscribed CONSTITUCION lies upon the altar, the left hand supporting consular fasces; *exergue*, 20 Q* (quilates=carats).

4. 10-Pesos, 1855. *Obv.* REPUBLICA DE CHILE; shield of arms supported by llama and condor; below, 1855. *Rev.* IGUALDAD ANTE LA LEI; Liberty in classical costume standing, supporting open book of Constitution.

9. Condor, 1896. *Obv.* REPUBLICA — DE CHILE; draped female bust representing the Republic, to left. *Rev.* Arms similar to No. 4; mountains in background; above, VEINTE PESOS; below, 1896. This coin was engraved by the eminent French medallist, the late Louis Oscar Roty.

SILVER.

13. Peso (Jeton), 1818. *Medallic piece relating to Independence of Chile.* *Obv.* EL ESTADO DE CHILE CONSTITUIDO INDEPENDIENTE. AÑO DE 1818; a palm-tree; above, range of mountains and rising sun; below, in cartouche, INDEPENDENCIA. *Rev.* JUNTOS * Y * UNIDOS * SEREIS * FELICES; a column supported by two hands, and surmounted by a star; above, a star and a scroll inscribed LIBERTAD.

15. Peso, 1822. *The first regular issue of the Republic.* *Obv.* UNION Y FUERZA. F. J.; a column surmounted by a globe, star above, and over the star a scroll inscribed LIBERTAD; beneath column, 1822. *Rev.* CHILE INDEPENDIENTE; a volcano in eruption; above, in laurel wreath, UN PESO; below, SANTIAGO.

17. Peso, 1853. *Obv.* REPUBLICA DE CHILE. \hat{S} .; national arms; below, * UN PESO * *Rev.* POR LA RAZON O LA FUERZA; a condor with piece of broken fetter in bill stands r. holding shield of Chile in left talon; below, * 1853 *.

21. Peso, 1895. *Obv.* REPUBLICA DE CHILE; a condor perched upon a crag, his wings partly spread and neck craned forward. *Rev.* Within a laurel wreath, UN / PESO / 1895; above, S—mint-mark of Santiago.

The gold and silver divisional coins have types and legends similar to the pieces of larger denomination above described.

Copiapo.—81. Peso, 1865. *Necessity piece struck during blockade of Chilean coast by Spaniards in 1865.* *Obv.* Within incuse circle, a shield of arms dividing the mark of value, I-P(eso); around, COPIAPO-CHILE. *Rev.* In field, 1865; incused circle on border.

Coquimbo.—82. Peso, undated. *Private coins.* *Obv.* Star on an incused shield; below, I. P(eso) in incuse depression. *Rev.* Plain.

COLOMBIA.

[Section 22.]

The Viceroyalty of Nueva Granada declared itself independent of Spain and established a republican government in 1811. In 1819 the Republica de Colombia was erected out of what later became Colombia, Venezuela and Ecuador; in 1836 Venezuela and Ecuador established independent republican governments, and the States of Colombia combined to form the Republica de la Nueva Granada (*Granadine Confederation*) which later, 1861, became the Estados Unidos de Colombia (United States of Colombia). In 1886 by executive order the name was changed back to Republic of Colombia.

The Spanish monetary system was retained until 1847 when the decimal system was introduced into the coinage and the old *peso* of 8 reales was superseded by a *peso* of 10 reales; but for the convenience of a population long accustomed to the earlier system there was also coined a piece of 5 reales called a *granadino*. In 1871 Colombia adopted the monetary system of the Latin Union and for unit a gold peso of slightly less value than the gold *dollar* of our own country.

THE MINT AT SANTA FE DE BOGOTA.

Nueva Granada (New Granada), 1811-1819.—1. Peso, silver, 1819. *Obv.* LIBERTAD AMERICANA; bust of an Indian woman, with feather crown, to left; below, 1819. *Rev.* NUEVA GRANADA. J. F.; a pomegranate with two leaves on the stem; at sides, 8 - R(eales).

The Spanish name of the pomegranate is *granada*, which will account for the choice of this device for *Granada* and *Nueva Granada*.

Republic of Colombia, 1819-1836.—3. Onza, gold, 1831. *Obv.* REPUBLICA DE COLOMBIA; draped bust of Liberty to left, with fillet inscribed LIBERTAD; below, 1831. *Rev.* Between two cornucopiae, consular fasces over which a bow and three arrows in saltire; above, B O G O T A ; below, 8. S. R. * S.

12. Colombiano, silver, 1835. The consular fasces, bow and arrows, between cornucopiae.—Valtie in wreath.

Granadine Confederation (Republica de la Nueva Granada) 1836-1861.—19. Onza (16 pesos), gold, 1837. *Obv.* Draped bust of

Liberty to left, with fillet inscribed **LIBERTAD**; below, 1837. *Rev.* Shield of arms of the Confederation; above, a condor in downward flight; around, **DIEZ I SEIS PESOS** (*sixteen pesos*). **BOGOTA. R. S.**

21. Onza, 1849. *A pattern by Wyon.* *Obv.* **REPUBLICA DE LA NUEVA GRANADA**; bust of Liberty to left, with fillet inscribed **LIBERTAD**; below, 1849. *Rev.* A shield of arms over a trophy of four flags, and surmounted by a condor; above, **BOGOTA. PESO** (*weight*)—25.8064. G.; below, **LEI** (*fineness*) 0.900.

25. Peso, silver, 1837. *Obv.* **REPUBLICA DE LA NUEVA GRANADA**; Arms of the Confederation; below, 1837. *Rev.* Within a laurel wreath, **8 / REALES**; above, * **BOGOTA ***; below, **R * S.**

28. Granadino (peso of 8 reales), 1847. *Obv.* **REPUBLICA DE LA NUEVA GRANADA**; arms of the Republic; below, 1847. *Rev.* Within a laurel wreath, **OCHO / REALES**; around, **BOGOTA.—LEY. 0.900.**

The divisional pieces, the *peseta* of 2 reales, the *real*, and the *cuartino* or quarter-real, have legends and types similar to the different issues of the peso, except the statements of value.

The United States of Colombia (Estados Unidos De Colombia) 1861.—44. 10 pesos, gold, 1863. *Obv.* **ESTADOS UNIDOS DE COLOMBIA**; bust of Liberty to left, in hair a fillet inscribed **LIBERTAD**; below, 1863, and nine stars. *Rev.* The national arms; around, G. 16.129 * **DIEZ PESOS * LEI 0.900—BOGOTA.**

50. Peso, 1871. *Obv.* **ESTADOS UNIDOS DE COLOMBIA**; bust of Liberty to left; below, 1871. *Rev.* Arms of the Republic, around, **GRAM. 25—UN PESO—LEI. 0.900**; beneath the arms, **BOGOTA.** *Edge as No. 49.*

The coinage of the mint at Medellín, State of Antioquia, is the same as that of Bogotá, except the mint mark; the specimens from that mint are indicated in the case by the label.

ECUADOR.

The group of provinces which afterwards became the Republic of Ecuador united in 1821 in forming the Republic of Colombia. In 1831 that union was dissolved and Ecuador established an independent Republic. The Spanish monetary system, with a *peso* of 8 reales, was retained until 1836 when the system of the Latin Monetary Union was adopted and a *franco* made the unit; but such a unit proved unsuitable to a people accustomed to a dollar divided into eight parts, and in 1871 a more suitable, a *peso* of 5 francs, or 10 reales, and 100 centavos, was adopted. In 1884 another marked change was made when the present system was adopted, which is that of the Latin Union again. The denominations of the present coins are the gold Condor and its subdivisions, and the silver sucre, named for Gen. Sucre, which is the equivalent of the French 5-franc piece.

1. AV. Doblado, 1835. **EL ECUADOR EN COLOMBIA.** Draped bust of Liberty l., with fillet inscribed **LIBERTAD**; below, 1. **QUITO D(oblado).** *Rev.* **EL PODER EN LA CONSTITUCION** Sun rising above two mountains on each of which is perched a vulture.

3. AV. Onza, 1847. Head of Simon Bolivar; below, 1847. 21 Q (quilates=carats). *Rev.* **REPUBLICA DEL ECUADOR** National arms; at sides, **8—E(scudos).**

4. AV. Media Onza, 1836. EL PODER, etc. Bust of Liberty 1.; below, 21.Q^s. 1836. 4. E. Rev. REPUBLICA, etc. Three mountains; on summit of one a castle on which is perched a condor, on the other two a condor and vulture, respectively; above, zodiac with meridian sun, and thereover seven stars.

5. AR. Sucre, 1884. REPUBLICA, etc. Head of Gen. Sucre 1. Rev. National arms. Struck by Heaton, Birmingham. No. 7 struck at Santiago, No. 8 at Lima.

PARAGUAY.

The coinage of Paraguay has a very unimportant history. In 1845 copper pieces were put into circulation, having the value of 1/12 of a medio real, or 1/192 of the peso. Various attempts to introduce a better coinage were made in 1854, 1855, and subsequently, but beyond a number of pattern coins produced at the mint at Paris nothing was effected. A law of 1903 legalized the coins of Argentine Republic in Paraguay.

1. AE. 1/12 Medio-Real, or 1/192 of Peso, 1845. *Obv.* A recumbent lion before a lance surmounted by a Phrygian cap. *Rev.* REPUBLICA DEL PARAGUAY; on a circular field azure, 1/12; below, 1845.

2. Tin. Pattern Peso, 1855. *Obv.* Liberty, seated facing, with palm branch in right and scales in left hand which rests upon a sword. *Rev.* REPUBLICA DEL PARAGUAY; a recumbent lion before a lance surmounted by Liberty cap; across the field beneath the cap, PAZ Y—JUSTICIA; in exergue, 10 R^s.

URUGUAY.

The coinage of Uruguay dates from 1840, though the republic began its existence with the treaty between Brazil and Argentine Confederation in 1828. The earliest coins of the country were of bronze, none being struck in the precious metals until 1870, except the interesting siege pieces of Montevideo. During the "Nine Years' Siege" of that city a mint was set up and silver *pesos fuertes* were issued bearing the legend SITIO DE MONTEVIDEO (Siege of Montevideo).

1. AR. Peso, 1844. *Siege piece of Montevideo*, held by the Liberals (*colorados*) and besieged by the landed proprietors (*estancieros*). REPUBLICA ORIENTAL DEL URUGUAY Shield of arms. *Rev.* SITIO DE MONTEVIDEO Within circle of nine stars, UN PESO/FUERTE; below, 10 $\frac{1}{2}$ D^s (=dineros).

The Republic of Uruguay.—2. Peso, 1893. National arms: REPUBLICA ORIENTAL etc. *Rev.* LIBRE Y CONSTITUIDA In wreath, 1/PESO. The types of the divisions of the Peso are similar to No. 2.

PERU.

Peru and Chile became independent Republics after the decisive battle of Ayacucho, December 9, 1824, though the standard of revolt had been raised in 1817. In 1825 the southern portion of the territory of Peru withdrew and established the independent Republic of Bolivia. The two countries were, however, reunited from 1836 to 1839 under a confederate constitution.

Before the war of revolution had been brought to a successful close there appeared the interesting coins with the types of Virtue and Liberty (1821–1823), but the coinage was soon interrupted and there followed an issue of obidional coins, first by the republicans (1822–1823) and in 1824 by the general of the Spanish forces besieged in Lima. In 1825 the republican coinage was resumed, this time with a figure of Liberty standing facing on obverse and on reverse the national arms. The Spanish monetary system was retained until 1855 when the decimal system was introduced, and in 1857 the gold *sol*, equivalent to the 5-franc gold piece of the Latin Monetary Union was made the basis of a new system; the silver coins consisted of a *sol*, its half, fifth, tenth, and twentieth. Nickel was coined from 1863 to 1880.

1. Peseta, 1821. *Commemorating Independence. Obv.* LIMA LIBRE JURO SU INDEPENDENCIA EN 28 JULIO D. 1821; face of radiate sun. *Rev.* Within a laurel wreath, BAJO LA/PROTECCION / DEL EGERCITO / LIBERTADOR / DEL PERU / MANDADO / POR SAN / MARTIN.

2. Peso, 1822. *Obv.* POR LA VIRTUD Y LA JUSTICIA; a column on a base of four steps with Doric capital; to left stands Justice with sword and scales, to right Virtue holding olive branch. *Rev.* PERU LIBRE (LIMAE) 8R. J. P.; national arms; below, 1822.

4. *Siege Pieces issued by the Republicans in Lima.* 1/4 Peso, 1823, Copper. *Obv.* Within a wreath, a range of mountains; above, clouds and shining sun; in foreground, Liberty pole and llama reclining to right. *Rev.* REPUBLICA PERUANA. (LIMAE). 1823; in field, CUARTO/DE PESO. Hatched edge. 28 mm.

6. Peso, 1822, countermarked date, 1824. *Siege piece issued by Gen. Conterac.* A specimen of No. 1 countermarked by the Spanish General when besieged in Lima. Countermark: crown with date, 1824, beneath.

GOLD.

The Republic.—7. Onza, 1827. *Obv.* FIRME Y FELIX POR LA UNION; Liberty, helmeted, standing, holding Liberty Pole in right hand, her left supporting a shield on which is LI/BER/TAD. *Rev.* REPUBLICA PERUANA (LIMAE). J. M.; upon a trophy of four flags a shield of arms with laurel wreath as crest; at sides, 8-E (scudos); below, 1827. Reeded edge.

16. Onza, 1863. *Obv.* FIRME Y FELIX POR LA UNION; Liberty in classical costume seated facing, holding in right hand Liberty Pole to which is attached a pennon inscribed LIBERTAD, in left, palm branch; on ground to right, round shield with radiate sun; *exergue*, 8 E*. *Rev.* REPUBLICA PERUANA LIMA 21 QUILATES Y. B.; national arms. Reeded edge.

19. Libra, 1898. *Obv.* VERDAD I-JUSTICIA; bust of an Indian chief to right; wears large circular earrings; below, UNA LIBRA. *Rev.* REPUBLICA PERUANA LIMA. R. OZ. F.; shield of arms with sun crest.

SILVER.

26. Jeton, 1828. *Size of Peso, commemorating ratification and promulgation of the Constitution. Obv.* *SANCIONADA. POR EL CONGRESO JENERAL DEL PERU; in a glory a book inscribed CONSTI-TU/CION. *Rev.* Within a wreath of oak and laurel, PROMULGADA/Y JURADA EN/6. DE ABRIL/DE 1828.

43. Sol, 1865. *Obv.* FIRME Y FELIZ POR-LA UNION; Liberty seated to right, her right hand resting on a shield, the left holding Liberty Pole; to right a column surmounted by a wreath and wound with a riband inscribed LIBER/TAD; below, UN SOL. *Rev.* REPUBLICA PERUANA LIMA 9 DECIMOS FINO. Y. B.; arms; below, 1865.

49. 5 Pesetas, 1880. *Obv.* PROSPERIDAD Y PODER POR LA JUSTICIA; female head to left, in hair wreath of wheat and flowers, and wearing earrings and necklace; below, 1880. *Rev.* REPUBLICA PERUANA LIMA 9 DECIMOS FINO B. F.; national arms; below, CINCO PESETAS. *Edge*, reeded.

54. Medio Peso, 1826. *In honor of life presidency of Bolivar and oath of allegiance to the Constitution.* *Obv.* PRESIDENCIA VITALICIA DEL LIBERTADOR SIMON BOLIVAR*; arms of Peru. *Rev.* SOLEMNEMENTE JURADA EN 9. DE DICIEMBRE DE 1826*; within a wreath of palm and laurel branches, an open book inscribed CONS/TI TU/CION; beneath book, LIMA.

NICKEL.

112. 20 Centavos, 1879. *Provisional coinage during war of Peru and Bolivia with Chile.* *Obv.* REPUBLICA PERUANA 1879; within a circle, radiate sun; below, VEINTE CENTAVOS. *Rev.* MONEDA PROVISIONAL; within a circle, 20; below, CENTAVOS. Reeded edge. 26 mm.

The types of the divisional coins are in general similar to those of the larger coins above described; and the issues of the other mints are the same as those of the mint at Lima, except the mint-mark.

Province of Ancachs.—120. Medio peso, 1839. *Employees of the Cuzco mint to Gen. Gamarra after victory over Santa Cruz, President of the Confederation of Peru and Bolivia.* *Obv.* LA LEY RES-TAURADA POR EL VALOR DEL EJERCITO UNIDO EN ANCACH; battle scene on a mountain side, and Fame on top of mountain blowing trumpet. *Rev.* In a chain wreath within a laurel wreath, LOS EMPLEADOS/DE LA MONEDA/AL RES-TAURADOR/DE SU PATRIA/GRAN MARISCAL/GAMARRA/CUZCO 1839.

Mint at Cuzco.—125. Peso, 1825. *In honor of Simon Bolivar.* *Obv.* SIMON BOLIVAR LIBR. DE COLOMB. Y DEL PERU; bust of Bolivar right. *Rev.* EL CUZCO A SU LIBERTADOR; ruins of the palace of the Incas; sun on left; below, 1825.

126. *South Peru.* Peso, 1838. *Obv.* FIRME POR LA UNION; a castle and a volcano by the sea; in front, cornucopia lying on the ground; a ship at sea; below, 10. D. 20. G. CONFEDERACION. B. A. *Rev.* REPUB. SUD PERUANA/*-*-*-*; sun radiate; below, .8.R. CUZCO 1838; *edge*, DIOS PROTEGE EL ESTADO.

126a. Onza, gold, 1838. Types similar to preceding.

VENEZUELA.

In 1810 the struggle for independence was begun in Venezuela, and brought to a successful close by Bolivar in 1819. In the latter year the country was united with Colombia and Ecuador into the *Republic of Colombia*. From this union Venezuela withdrew in 1829 and established the *Republica de Venezuela*, which title was later changed to *Estados Unidos de Venezuela* (United States of Venezuela).

During the revolutionary struggle bronze *quarter reals* were struck at Caracas, and finally silver *Necessity Pesetas* and *Reals*. The coinage law of 1837 established the first important coinage system of Venezuela. The unit provided by this law was a gold *venezolano* of 100 *centavos*. In this series belongs the interesting silver *peso*, first issued in 1863, bearing the portrait of President José Antonio Páez with the title

"*Illustrious Citizen.*" After the adoption of the monetary system of the European Latin Union in 1871 the head of Bolívar, the Liberator (*Liberador*), and the national coat of arms appear on the coins of Venezuela.

A. *During revolution, mint at Caracas.*—a. 1/4 Real, bronze, 1812. Six-point star; in center, 1.9 (=19th of April, 1810, when last Spanish Captain-general was deposed.) *Rev.* 1/4/DE REAL/1812.

26. 1/4 Real, bronze, 1816, *Necessity Piece.* *Obv.* CARACAS-ANO DE-1816; a lion and a cross; above a crown. *Rev.* VENEZUELA in monogram; below, 1/4.

30. Peseta, silver, 1818, *Necessity Piece.* *Obv.* Cross, with lions and castles in angles; above and below, 2. *Rev.* Two pillars; across the field, LV-SVL-TR./B. 1818. S./CARACAS.

B. *Republic of Venezuela.*—1. Bolívar, gold (20 Venezolanos), 1887. *Obv.* BOLIVAR-LIBERTADOR; head of Bolívar to right; beneath, BARRE. *Rev.* ESTADOS UNIDOS DE VENEZUELA; arms of Venezuela; below, GR. 32. 2580-1887-LEI 900.

4. Venezolano, silver, 1902. Legends and types similar to No. 1, but the weight is GRAM* 25.

9. Bolívar, 1902. Legends and types similar to No. 1, except the weight which is GRAM. 5. and the fineness, LEI 835.

The silver *bolívar* is the active unit of Venezuela; it corresponds to the *franc* of the Latin Monetary Union.

BRITISH GUIANA.

This British colony, which was acquired from the Dutch in 1803, consists of Demerara, Essequibo, and Berbice. At first England retained the monetary system of the Dutch and coined for the colony the 3 and 2 guilders, the guilder, its half and quarter, and the bronze $\frac{1}{2}$ stuiver. In 1839 the monetary system of the colony was made to correspond to the silver coins of the United States of America, but no coins on that system were ever struck. In 1888 a *groat* or *fourpence* piece, later (1891) intended for this colony and the British West Indies, was struck; its value was the equivalent of the $\frac{1}{2}$ *guilder* or *bit*.

1. AR. 3 Guilders, 1809. *Obv.* GEORGIUS IIII DEI GRATIA; bust of George IV, laureated, to right. *Rev.* COLONIES OF ESSEQUIBO & DEMARARY TOKEN; numeral 3, crowned, within a wreath; below, 1809.

11. AR. 3 Guilders, 1832. *Obv.* GULIELMUS IIII D: G: BRITANNIAR: REX: F: D:; head to right. *Rev.* UNITED COLONY OF DEMARARY & ESSEQUIBO; type as No. 1.

The three settlements were formed into a "United Colony" in 1831.

17. AR. Groat, 1891, of Victoria, for "British Guiana and The West Indies." Coroneted head.—Value, crowned.

FRENCH GUIANA.

French Guiana has been a penal colony since the latter part of the eighteenth century, and for this reason, among others, its slow progress and commercial unimportance have made small need of a special coinage. Coins withdrawn from circulation in the mother country were shipped to the colony in the latter part of the eighteenth century; and in 1818 there was a special coinage of 10 *centime* billion pieces, while a general colonial coinage issued in 1825 was circulated in this colony.

BRAZIL.

[Section 23, upper case.

The colonial coinage of Brazil as a possession of Portugal dates from 1694, when Dom Pedro II established a mint at Bahia; subsequently several other mints were established in the colony and the later independent Empire. The earlier gold and

silver coins have on obverse the arms of Brazil, and on reverse the cross of St. George on the gold coins, on the silver a globe over the cross of the Order of Christ, around which is the legend, SVBQ(ue) SIGN(o) NATA STAB(it), "The land discovered under (this) sign (i. e., of the cross) shall prosper." In 1727 the portrait of the King of Portugal, John V, appeared on the gold coins of Brazil, and the colonial coins were distinguishable from those of Portugal only by the mint mark placed beneath the bust.

The *Empire of Brazil* was established in 1822, when the only changes made in the coinage were the necessary ones of the types. After the country had become a republic in 1889 the portrait of the emperor was supplanted by a bust of the goddess of Liberty wearing a Phrygian helmet.

As a colony of Portugal.—1. AV. Moeda (4,000 reis), 1704, of *Dom Pedro II* (A. D. 1683-1706). *Obv.* PETRVS. II. D. G. PORT. ET ALG. REX; crowned arms of Portugal; at sides, 4,000 (reis)—four rosettes in vertical line. *Rev.* IN+HOC+SIGNO+VINCES+1704; cross of the Order of Christ, with letter R (*Rio de Janeiro*) in each angle. *Edge*, hatched.

2. AR. 2 Patacas (640 reis), 1695, of the same. *Obv.* PETRVS. II. D. G. PORT. REX. ET. BRAS. D.; type similar to No. 1, but at sides, 640—three rosettes; date, 16-95 divided by the crown. *Rev.* SUBQ.—SIGN. NATA-STAB.; globe upon cross of Order of Christ.

3. Dobra, or 5 Moedas (20,000 reis), 1725, of *Dom João V* (A. D. 1706-1750). *Obv.* IOANNES. V. D. G. PORT. ET. ALG. REX.; type as No. 1, but at sides of shield, 20,000—five rosettes. *Rev.* Similar to No. 1, but with letter M (*Minas*) in angles.

9. AV. Dobra of 8 Escudos (12,800 reis), 1729. *Obv.* Legend as No. 8; laureated bust to right; beneath, M (*Minas*)/1729. *Rev.* Garnished shield of the arms of Portugal.

15. AV. Half-dobra, 1758, of *Dom José I*, A. D. 1750-1777. *Obv.* JOSEPHUS. I. D. G.—PORT. ET. ALG. REX.; laureated bust to right; beneath, R/1758. *Rev.* Similar to No. 9.

Special coins for the mining districts.—17. AR. Pataca (300 reis), 1752. *Obv.* Initial +J+, crowned; at sides, in field, 300—+ + +, vertical.

23. AV. 4 Milreis (4,000 reis), 1779, of *Maria I* and *Dom Pedro III* (A. D. 1777-1786). Arms of Portugal; at sides, 4000—Cross of St. George.

40. AV. Half dobra, 1807, of *Dom João*, prince regent (A. D. 1799-1818). *Obv.* JOANNES. D. G. PORT.—ET. ALG. P. REGENS; laureated bust; below, 1807. R.(io Janeiro). *Rev.* Oval shield of arms in garnished cartouche, crowned.

42. AR. Spanish-American Peso of Charles IIII, 1807. *Obv.* Countermark, oval shield of arms, crowned, within a wreath; beneath, 960. *Rev.* Countermark, a globe.

Spanish coins were thus countermarked and legalized in Brazil to provide a sufficient supply of money while the court of Portugal, driven from Lisbon by the French invasion, was established in this colony.

43. AR. 3 Patacas, or Patagon (960 reis), 1810. *Obv.* JOANNES. D. G. PORT. P. REGENS ET BRAS. D.; arms of Portugal, crowned; at sides, 960—three rosettes. *Rev.* Similar to No. 2.

Empire of Brazil.—64. AR. Patagon (960 reis), 1823, of *Dom Pedro I* (A. D. 1822-1831). *Obv.* PETRUS. I. D. G. CONST. IMP. ET. PERP. BRAS. DEF.; within a laurel wreath, 960; below, 1823 R.

Rev. IN HOC SIGNO; arms of Brazil. Struck over a *Peso* of Ferdinand VII.

65. AR. Patagon, 1826, of the same. As last but not a restrike of a Spanish-American piece.

66. AV. Half Dobra, 1833, of *Dom Pedro II* (A. D. 1831-1889).

Obv. PETRUS. II. D. G. CONST. IMP. PERP. ET. BRAS. DEF.; nude bust of the emperor as a child, to right; below, +1833. R+. *Rev.* IN+HOC+SIGNO+VINCES. Arms of Brazil; below, +6400+.

79. AV. Moeda (10,000 reis), 1838. Legends similar to No. 78; nude bust of Emperor as a boy.

80. Ditto, 1848. Youthful bust of the Emperor in uniform.

81. AV. Dobra (20,000 reis), 1851. Bearded bust of the Emperor in admiral's uniform, to left.

94. 2 Milreis, 1968. *Obv.* PETRUS II D. G. C. IMP. ET PERP. BRAS. DEF.; nude bust of emperor to left; below, *1868*. *Rev.* Arms of Brazil; below, 2,000 REIS. The other denominations in silver, the *Milreis*, 500 Reis, and 100 Reis, have types similar to No. 94.

111. Nickel. 200 Reis, 1871. *Obv.* IMPERIO DO BRAZIL; arms of Brazil; below, *1871*. *Rev.* DECRETO N° 1817. DE 3 DE SETEMBRO 1870; within a circle, 200 /REIS. *Edge*, plain. The nickel pieces of 100, and of 50 Reis, have types similar to No. 111.

The Republic of the United States of Brazil (Republica dos Estados Unidos do Brazil).—136. AR. Milreis, 1889. *Obv.* Draped bust of Liberty wearing liberty cap; below, 1889. *Rev.* Arms of Brazil; below, 1,000 REIS.

137. AR. Milreis, 1891. Similar to No. 136, but head of Liberty laureate.

Special coinage in commemoration of the 400th anniversary of the discovery of Brazil in 1500.—AR. 4 Milreis, 1900. *Obv.* 4° CENTENÁRIO DO DESCOBRIMENTO DO BRASIL; full length figure of Pedro Alvares Cabral, the discoverer of Brazil. *Rev.* Arms of Portugal and of Brazil. In the same series, 2 *milreis*, 1 *milreis*, and 400 *reis*.

145. Nic. 200 Reis, 1889. National arms.—200 REIS in sable field.

146. Nic. 400 Reis, 1901. Draped bust of Liberty.—National arms.

THE WEST INDIES.

HAYTI.

[Section 23, lower case.]

This island became independent of France in 1804, and at once fell into three self-governing communities. In the northwest was established a republic which the first President, Henri Christophe, erected into a nominal kingdom in 1812; in the southwest the Mulatto Republic was established, with Alexander Pethion as President; while in the eastern part of the island was the Dominican Republic. From 1822 to 1843 the entire island was united under one government; being divided again on the latter date into the Republic of Hayti and the Dominican Republic, political divisions which still survive, though the former was nominally an empire from 1849 to 1858, with the former president Faustin Solouque as emperor under the title of Faustin I.

1. AR. Escalin, 1807, of *Henri Christophe, President (1807-1814)*. *Obv.* LIBERTAS RELIGIO MORES; a shield with H C (Henri Christophe) in monogram, within a wreath. *Rev.* MONNOIE-D'HAYTI; Liberty standing facing and holding a Liberty Pole in right, and consular fasces in left, hand; at sides, 15-SOLS.

6. AR. Gourde, 1812 (a pattern), of *Christophe as King (1812-1820)*. *Obv.* HENRICUS DEI GRATIA HAITI REX; laureated bust of the King to right; below, ESSAY. *Rev.* DEUS CAUSA ATQUE GLADIUS; within a band inscribed EX CINERIBUS NASCITUR*, a shield azure charged with phoenix rising from flames; the whole crowned; below, 1812.

The Mulatto Republic—Alexandre Pethion, President (1807-1818).

13. AR. Gourdin, year XIV of Independence (1817). *Obv.* A. PETION—PRESIDENT; his bust to left; below, AN 14. *Rev.* REPUBLIQUE D'HAYTI; palm-tree surmounted by Liberty Cap before trophy of arms; below, *25*C*.

Jean Pierre Boyer, President.—14. AR. Gourdin, year XV (1818). *Obv.* J. P. BOYER—PRESIDENT; his bust to left; beneath, AN 15. *Rev.* Similar to No. 3.

United Hayti (1822-1843).—20. AR. Gourdin, year 24 (1827). Similar to No. 3.

The Republic of Hayti (After separation from San Domingo, 1848).—

38. AE. 6 Centimes, year XLIII (1846). Consular fasces.—Value in wreath.

The Empire of Hayti (1849-1858).—42. AE. 6 Centimes, 1850, of *Faustin I.* *Obv.* FAUSTIN I^{ER}.—EMPEREUR D'HAYTI; his crowned bust, draped, to left; below, 1850. *Rev.* LIBERTE INDEPENDANCE; crowned shield of arms with supporters; below, SIX CENTIMES UN QUART.

The Republic Restored.—43. AR. Double Decime, 1863. *Obv.* GEFFRARD PRESIDENT; head to left; below, 1863. *Rev.* REPUBLIQUE D'HAITI; arms of Hayti; below, VINGT CENTIMES.

Gen. Nord Alexis, President, 1902.—56. Nic. 50 Centimes, 1907. *Obv.* REPUBLIQUE-D'HAITI; bust to left; below, 1907. *Rev.* Arms of Hayti.

DOMINICAN REPUBLIC.

1. AE. Cuartilla, undated. Necessity piece. *Obv.* Monogram, F 7 (Ferdinand VII), crowned. *Rev.* S. D. (=Santo Domingo) /1/4, within a laurel wreath.

The pieces that follow are patterns.

12. AR. 5 Francos, 1891. *Obv.* Head of Liberty to left with feather bonnet, on band of which is LIBERTAD; around, 1891. CINCO FRANCOS; below, TASSET. *Rev.* REPUBLICA DOMINICANA; shield of arms within a wreath of palm and laurel branches joined by a ribbon inscribed DIOS-LIBERTAD-PATRIA; below, *GRAM. 25 * LEI. 900 *.

Franco and 1/2 *Franco* of same types.

THE BRITISH POSSESSIONS.

For but few of the British possessions in the West Indies have there been special coins struck in considerable amounts. On the other hand the makeshift currency which necessity compelled the islanders to provide for themselves is of the greatest interest. This currency consisted of a large variety of countermarked coins of neighboring countries and countermarked pieces cut from Spanish-American silver coins, chiefly from the *Peso*.

BAHAMA ISLANDS.

1. AE. Halfpenny, 1806; pattern. *Obv.* GEORGIUS III. D. G. REX; laureated bust to right; below, 1806. *Rev.* BAHAMA; three ships and an island; *exergue*, EXPULSIS PIRATIS / RESTITUTA / COMMERCIA.

BARBADOES.

3. AE. Penny, 1788. *Obv.* Crowned negro bust to left; below, I. SERVE. *Rev.* BARBADOES PENNY; a pineapple; beneath, 1788.

BERMUDA (FORMERLY SOMMER ISLANDS).

5. AE. Shilling token, undated. *Obv.* * SOMMER * ISLANDS; wild boar standing to left; above, mark of value, XII. *Rev.* Three-masted ship sailing to right.

Following are *sixpence* and *twopence* of similar types. These pieces are generally associated with American colonial coinages by American numismatists.

DOMINICA.

8. AR. 2 bits, undated. *Obv.* Letter *D*, with star in the loop; cable pattern on border. *Rev.* Plain. *Edge*, Scalloped. 16 mm. Apparently cut from the center of a Spanish half peso.

JAMAICA.

10. AR. Necessity dollar. A Mexican peso of 1758 countermarked G. R. (Georgius Rex) on both sides.

11. Nic. Penny, 1871. *Obv.* VICTORIA QUEEN; coroneted bust of the Queen to left; below, 1870. *Rev.* JAMAICA * ONE PENNY *; shield of arms, with crocodile above; beneath, on a scroll, INDUS-UTERQUE O SERVIET-UNI.

ST. LUCIA.

23. AR. *Necessity piece struck during the English occupation of 1810.* Middle segment of a Mexican peso of 1798 countermarked S. LUCIA in a long incused depression.

ST. CHRISTOPHER, OR ST. KITTS.

25. AE. *Necessity piece; a Cayenne (French Guiana) sou countermarked S. K., incused.*

TOBAGO.

26. AR. *Necessity piece; a peseta of Charles III, City of Mexico mint, countermarked T incused.*

TORTOLA.

31. AR. *Necessity piece. Nearly half of a Spanish-American peso, struck at Lima, countermarked T O R T O L A in deep incuse depression on obverse.*

THE FRENCH POSSESSIONS.

In 1721 the French Government made its first successful effort to provide a suitable currency for its West Indian possessions and issued the copper *sous* designated generally for the *Colonies Françaises*; which was followed in 1731 by a silver coinage bearing the legend *Isles du Vent*, though destined for the same colonies. The currency of Guadeloupe has at different times included considerable amounts of foreign coin so countermarked as to legalize them.

1. AE. Sou, 1721. *Obv.* SIT NOMEN DOMINI BENEDICTUM; two L's in saltire, crowned. *Rev.* COLONIES / FRANCOISES / 1721 / H. (mint of La Rochelle).

3. AR. Livre, 1731, of Louis XV, A. D. 1715-1774. *Obv.* Laureated bust to right. *Rev.* ISLES/DU/VENT, the last word between tendrils of a lily; below, 1731.

GUADELOUPE.

8. AE. Double sou, 1767. *Obv.* COLONIES/FRANCOISES; two scepters in saltire, dividing L-XV. *Rev.* SIT NOMEN DOMINI BENEDICTUM; countermarked R F (Republique Française) within a wreath.

9. AR. *Necessity piece. A Mexican real of Philip V, from which has been cut a heart-shaped piece.*

13. *Necessity piece of 8 escalins. Spanish peso struck at City of Mexico, from which octagonal piece of the value of an escalin has been cut.*

14. *Necessity piece. United States one-cent piece, countermarked on reverse with heart-shaped device.*

DANISH POSSESSIONS.

The Danish possessions in the West Indies consist of the islands of St. John, St. Thomas, and St. Croix. Special coinage for these islands dates from 1740.

1. AR. 24 skillings, 1763, of *Frederick V* (A. D. 1746-1766). *Obv.* Royal monogram, crowned; around, D. G. DAN. NOR. VAN. GOT. REX. *Rev.* XXIIII SKILL. DANSKE AMERICANSK. M.; a ship sailing to right; beneath, 1763.

4. AR. Double real, 1816, of *Frederick VI* (A. D. 1808-1839). *Obv.* Crowned shield of arms. *Rev.* XX/SKILLING/DANSK/AMERICANSK/MYNT/1816/. Reeded edge.

ST. THOMAS.

16-18. Nic. 5, 3, and 1 cent tokens. Both sides, DELVALLE & CO. ST. THOMAS; in field, V c./MEXIC.

SWEDISH POSSESSIONS.

ST. BARTHOLOMY.

1. AE. Necessity piece. Cayenne sou countermarked with a crowned D on reverse.

SPANISH POSSESSIONS.

CUBA.

Havana.—1. AR. Toston, 1789. CAROLUS. IIII. DEI. GRATIA. Laureated bust to right; below, 1789. *Rev.* MIGUEL CIRIACO ARANCO-HABANA. Three castles; beneath, two keys in saltire.

Cuban Republic.—4. AR. Souvenir peso, 1897. REPUBLICA DE CUBA. Crowned shield of arms in oak and laurel wreath; below, 900***FINO. *Rev.* PATRIA Y LIBERTAD. Female head; below, SOUVENIR; in field, 18-97.

PORTO RICO.

5. AR. Peso, 1895, of *Alfonso XIII*. Youthful bust of king 1. *Rev.* ISLA DE PUERTO RICO. Arms of Spain; beneath, 1 PESO=5 PTAS.

ORIENTAL COINS.

(A) THE SASSANIDES.

[Section 18.]

Ardashir (Artaxerxes), a grandson of Sassas, led a successful revolt against Parthis in A. D. 226 and reestablished the Persian monarchy. In the following year the worship of Zoroaster was established and Christianity rooted out. This change of religions appears in the coin types. Obverse, portrait of the king with a high tiara; reverse, a fire altar and attendant priests.

The Sassanian dynasty was expelled by followers of Mohammed in A. D. 652.

(B) THE MOHAMMEDAN COUNTRIES.

The successors of Mohammed, the caliphs of Damascus and Bagdad, soon extended their conquests eastward to the borders of India and China and westward to include Spain. The early coinage resembled the coins of the various conquered countries and consisted of a silver *dirhem* (drachma) similar to the Sassanian type, a gold *dinar* (denarius) of Byzantine and Spanish types, and bronze coins after the Byzantine types. But in A. D. 696 Caliph Abd-el-Melik, because the Koran forbids to represent any kind of living thing, ordered figures of all kinds to be removed from the coins; and thus there was left only inscriptions, which consisted of passages from the Koran, name of the city where the mint was located, the date of coinage, and later the name of the Caliph or Sultan in some countries, but never by the successors of Abd-el-Melik at Damascus. This reform was followed by all the Mohammedan countries. The inscriptions on the coins are engraved in Cufic or early Arabian characters, highly conventionalized and adapted with much success to the purposes of a coin type. The dates are according to the Islam era of the Flight, A. H. (anno hegiræ) about A. D. 622.

(a) AMAWEE CALIPHS OF DAMASCUS.

1. AR. Dirhem, of El Walid I (A. H. 86-96=A. D. 705-715).

(b) ABBASEE CALIPHS OF BAGDAD.

AR. Dirhem, of Haroun al Raschid (A. H. 170-193=A. D. 786-809).
Obv. "There is no God but Allah; he is one; he has no companion."
Rev. "Mohammed is the messenger of God."

(c) THE WESTERN CALIPHS OF EGYPT AND SPAIN.

(d) THE TURKOMAN HOUSES OF MESOPOTAMIA.

The more important of these houses were the *Seljukees of Er-Room* and the *Urtu-kees of Mardeen*. In the 12th and 13th centuries large bronze coins were issued by these countries bearing various figure-types, the teaching of the Koran being thus set aside in favor of commerce with the western peoples, a commerce that had been enormously increased by the crusades. The figures on these coinages are generally in imitation of the Byzantine types and even include such christian types as the one of the Virgin Mary crowning the emperor. Of special interest is the *Dirhem* of Kay-Khusroo with the lion surmounted by the sun, the sun in leo, which was the horoscope of his Georgian wife, whose portrait he wanted to place on his coins, but dared not.

(e) TURKEY.

The coinage of the Othmanli Sultans of Turkey follows closely that of the earlier Caliphs, in so far as types are concerned. Commercial relations with Europe, however, caused important changes of standard and the introduction of larger denominations than the Diner and Dirhem. Beginning with Prince Suleyman, A. D. 1400, the intricate monogram or touhra of the sultan is found on the coins. This elaborate figure is simply the name of the sultan and his father and sometimes an additional title, as *Kahn Abdul Aziz, son of Murad, the ever Victorious*.

(f) THE LATIN ORIENT.

(Crusaders.)

The conquests of the Crusaders in the Orient were promptly followed by the institution of coinages in the various principalities. At Edessa, Antioch, and in the kingdoms of Jerusalem and Cyprus, coins were issued soon after the successes of the first crusade; and also in about a score of other small governments established by later crusades in Africa, Greece, and the islands. Some of the coins are similar to what the crusaders had known in the Occident, while other issues imitate the Byzantine and Arabian coins.

(g) MOHAMMEDAN INDIA.

In the 11th century Islamism made its way into India with the Ghaznavis and in that country arose the empires of the *Sultans of Delhi*, established by the followers of Ghingis Khan.

(C) SOUTHERN INDIA AND BRITISH INDIA.

The native princes of India, especially in the southern portion, struck their own coins with a variety of types. This native Hindu coinage was based on a system with a gold unit called a *Hun* (native) or *Pagoda* (European); while the silver *Rupee* was the unit of the Mussulman system. Both systems prevailed in different parts of India until comparatively recent times. The coinage of the East India Company followed very closely that of the native princes. The company coined at mints in the Presidencies of Bengal, Bombay, and Madras. Coincident with the death of the last Mogul emperor of Delhi in 1862, they had been emperors only in name since 1748, the government of India passed from the East India Company to a Council of State, and in 1877 the Queen of England was proclaimed Empress of India, and an imperial coinage established.

CHINA.

The earliest metallic currency of China was in the form of utensils—spades and forks, known as *pu-coins*, and especially knives or razors. The native historians place the origin of these *pu-coins* at about B. C. 3000, which is probably about 2000 years too early, the inscribed pieces being as late as 700 B. C. or later. For over two thousand years, and until a very few years ago, the cash was produced by casting. They are now struck. For centuries China used the precious metals only in the form of bars, especially the ship or shoe shaped bars. (See lower case.) For over a century Spanish and Mexican silver dollars have served Chinese commerce and trade; and now some of the provinces are coining silver. (See lower case.)

The legends on the *cash* are, for obverse, the designation of the period of the reign (also used as the title of the emperor) and designation of the coin, as: *Kuang Hsi Tung Pao*, "Exchange Value (i. e., currency) of the Kuang Hsi period"; and on reverse, name of the mint or any special authority that issued the coin.

1-10. *Pu* coins, in forms of "bridge," "spade," or "shirt," and the "knife" or "razor cash."

26. *Cash* of Kao Tsu (A. D. 618-627). The crescent on this piece is said to have had an origin that is typically Chinese. Wax models

were submitted for the inspection of the Empress Wentek, A. D. 620. She had the well-known long finger nails, and in handling the wax pieces left the crescent-shaped impression of the nail in the soft wax. Satisfied with the work of the artist, she returned the models to her ministers with the orders to make the coins exactly according to the models. The order was obeyed, and even the nail impressions were reproduced in the coins. The crescent is found on many later issues.

393ff. Coins used as amulets.—Large amulet coins have been frequently issued in China.

Countermarked coins.—Coins of western nations, stamped with the device of merchants, have had large currency in China.

Coinage of the Provinces.—Some of the Provinces, as Kwang Tung and Szechuen, now coin silver.

Indo-China.—French possession. 1. *Piastre de Commerce*, or "Trade Dollar." France seated. *Rev.*: Value. See "Trade Dollar under Japan, and note thereto.

SIAM.

Cowrie shells.—These shells have long been employed as currency in the Orient, and are still in use.

"Bullet Money."—Simply short bars with ends crushed together and thus forming almost a ball, bearing several stamps.

JAPAN.

The coinage of Japan dates from the eighth century, when the copper *Sen*, a close imitation of the Chinese cash, was issued. The much later gold and silver coins are oblong and oval in shape. In 1871 a new gold and silver coinage on western models was instituted.

Oban, of Emperor Ninko (1817–46). The large oval piece. The smaller oval gold pieces are *Kobans*.

46. AR. Trade dollar, 1877. Dragon; 420 GRAINS TRADE DOLLAR. 900 FINE. *Rev.*: Value in wreath. Japan, France, and the United States have struck "Trade Dollars" for circulation in the Orient in competition with the Mexican dollar, but without success.

KOREA (CHOSEN).

The early money of Korea, like Japan's, was modeled after that of China. A native effort is seen in the *Mace* and *Two-mace* piece with enamel centers, a form soon abandoned because the enamel was not durable. No coins have been struck like the large patterns in the case.

PHILIPPINE ISLANDS.

The Spanish coinage for these islands was followed in 1903 by the special coinage under control of the United States of America.

MEDALS.

[Inside the circular case, and the wall cases.]

Commemorative coins were frequently issued in antiquity, but a medallic piece without monetary usefulness and solely for commemorative purposes, in other words the *commemorative medal*, originated in Italy in the first part of the fifteenth century. The first efforts followed closely the style of Roman coins, but Antonio Pisano, or Pisanello, broke away from the models and the spirit of the antique coins and in a fresh, new style produced medals that won general admiration and secured for that branch of art an enormous popularity. During the sixteenth century the medal sank to a mean thing artistically and for the most part was employed to commemorate petty and trifling events; and only in recent years has it risen again to be a work of art, though with a different technique and spirit. The last two decades have produced some of the finest works since Pisanello's last medal.

1. ITALIAN.

[Sections 27 and 28.]

Galvano types of now rare medals of *Pisanello* and of *Mateo di Pasti*. Of the large and interesting series of *papal medals* all are authentic except the first three, which are of popes who antedate the invention of the medal.

2. FRENCH.

[Sections 29 and 30.]

The long series of French medals is particularly important for both artistic and historical reasons; and France has led in the recent revival of medallic art. Specially interesting are the *medals of Napoleon*, particularly those by *Andrieu*; three medals of *Gambetta* by *Roty*, *Vernier*, and *Chaplain*, respectively; the series of the *Presidents* by *Chaplain*; the *funeral of Carnot* by *Vernon*; the *Orpheus* and *Agriculture* by *Coudray*; and the copy of the gold medal by *Bottée* given to the city of San Francisco by France.

3. SPANISH, DUTCH, ETC.

[Section 31.]

Of historical interest are the medals of Admiral *Van Tromp*; of the *treaty of Breda*, by which New Amsterdam was ceded to Great Britain; the three Dutch medals relating to United States of America—(1) *Recognition of U. S. by States General, 1782*, (2) *Recognition of same by Friesland*, (3) *Commercial treaty between Netherlands and U. S.* The medals of *John Calvin* and of *Jenny Lind*. By the new artists, *400th anniversary of discovery of America*, by *Maura*; by the gifted Dutch medallist, *Devreese*, *Henri Bayert*, *Ernest Babelon*, and "*The origin of design.*"

4. GERMAN.

[Section 32.]

Chiefly historical, including the gold medal relating to the peace of Westphalia; yet a number of contemporary artists are represented as *Schiller* by *Christ*, *Bismarck* and *Von Moltke* by *Goetz*.

5. RUSSIAN.

[Section 33.]

A splendid series of historical, award, and personal medals, including a number of the best medals of Catherine II by *Gass* and also that artist's *Peter the Great memorial*. The war medals pertain chiefly to the wars between Russia and Turkey; among the personal medals Sheneman's *Canchrin* is noteworthy.

6. ENGLISH.

[Section 34.]

The English medals in this section are chiefly of historical interest, though the *Waterloo medal* by *Pistrucci*, the medal of the Royal Geographical Society to *Henry M. Stanley* by *Miss Elinor Hallé*, and *Boucher's* splendid medal of Christian IX and Queen, of Denmark, are of superior work. Of interest to Americans is the medal in honor of Washington inspired by D. Eccleston, of Lancaster, England.

7. MISCELLANEOUS EUROPEAN AND JAPANESE.

[Section 35.]

Upper case.—The medals in this case are masterpieces by contemporary artists, chiefly of distinguished persons. Portions of the exhibition are changed from time to time. *Lower case*, (Japanese).—Chiefly award medals, but the three pertaining to the late emperor Mutsuhito, to the empress, and to the marriage of the crown prince (present emperor, Dec., 1912), are fine specimens of Japanese work.

8. UNITED STATES OF AMERICA.

[Sections 36-40.]

The medals of the United States are classified into:

(a) *Historical medals* (section 10).—The majority of the medals belonging under this head will be found in the cases on the north wall. In this section are: Dupré's *American Independence* with bust of Liberty with unrestrained hair; Paquet's *General Meade*; Müller's *Robert Anderson*, the defender of Fort Sumter, and Brenner's *John Paul Jones*. In the wall cases medals of special historical interest are: Du Vivier's *Washington, for retaking of Boston*; Fürst's *Perry, for victory on Lake Erie*; Antrobus and Paquet's medal of *Gen. Grant*, and Barber's *Orville and Wilbur Wright, for Successful Navigation of the air*.

(b) *Medals pertaining to centennial celebrations.*—Of the *Independence of the United States*, by Wm. Barber; of the *Inauguration of Washington as President*, 1889, by Saint-Gaudens; the *Ter-centennial of Settlement at Jamestown*, 1907; the *250th anniversary of the settlement of the Jews in America*, 1905, by Konti.

(c) *Medals pertaining to expositions.*

(d) *Award medals.*—Including the *Carnegie Hero Fund medal*, by Osborne; the *Panama Canal medal*, by Brenner; gold medal of the *San Francisco Vigilance Committee*, 1856; medals of *The National Academy of Sciences*, and of *The Smithsonian Institution*, by Chaplain.

(e) *Personal medals.*—Medals of persons distinguished in various pursuits, as Rev. H. W. Beecher, J. Fennimore Cooper, Edwin

Forrest, Franklin, Hay, C. P. Huntington, Irving, Jefferson, Lafayette, Lincoln, Dr. Benjamin Rush, Schurz, and Webster.

Washington medals.—Section 14, upper and lower cases, is devoted entirely to medals of Washington. They are almost solely of historical value, hardly any of them showing artistic excellence. The portrait on many of them, though signed by various engravers, is in reality a copy of the Du Vivier portrait on the medal awarded for the *Retaking of Boston*, No. 1.

WALL CASES.

North wall.—Both cases contain specimens of medals produced at the mint and offered for sale. They include medals of the presidents, of numerous Army and Navy officers, of civilians who have been thus honored by Congress, and numerous historical medals.

East wall.—*Bronze copies of original models for medals.* The reduced finished medals will be found elsewhere in the cabinet.

South wall.—*Paper currency.* To right, specimens of various issues of paper currency in our own country, including issues by the various colonies, by the Continental Congress, unredeemed bills of defunct State banks, postage and fractional currency issued during and after the Civil War, and clearing-house certificates. To left, currency of the Confederate States of America and of various foreign countries.

West wall.—To left, *medals by the late Mr. Saint-Gaudens and others*; the Franklin medal and large bronze model of first study for obverse of same; obverse of World's Fair (Chicago) Award Medal, and study for a reverse of same. To right, original models of last issue of gold coins, eagle and double eagle by Mr. Saint-Gaudens, half eagle and quarter eagle by Mr. B. L. Pratt.

WALL PAINTINGS.

The series of four wall paintings about the large windows are by Mr. William Van Ingen, of New York. The work is pure encaustic and one of the few specimens of the process in this country. The subjects are: South wall, *A mountain*, the usual scene of gold mining; north wall, *Placer mining*; east wall, *Hydraulic mining*; west wall, *Quartz mill*.

